DOCUMENT RESUME

ED 456 580 EC 308 564

TITLE	Identification of Children Who Are Gifted: A Technical Assistance Manual.
INSTITUTION	Ohio State Dept. of Education, Columbus. Div. of Special Education.
PUB DATE	2000-03-00
NOTE	71p.
AVAILABLE FROM	Ohio State Dept. of Education, Div. of Special Education, 25 South Front St., Columbus, OH 43215-4183. Tel: 614-466-2650; Fax: 614-728-1097; Web site: http://www.ode.state.oh.us.
PUB TYPE	Guides - Non-Classroom (055)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Ability Identification; Elementary Secondary Education; Evaluation Methods; *Gifted; Minority Group Children; *Screening Tests; *State Regulation; *Student Characteristics; Student Evaluation
IDENTIFIERS	*Ohio

ABSTRACT

This technical assistance manual is designed to provide Ohio school districts with resources and information to aid in the development of appropriate procedures to identify children who are gifted. It is organized to respond to questions that districts may have or need to answer regarding gifted identification and provides information and strategies on which school districts may base decisions regarding the screening and assessment of children who are gifted. Specific sections address: (1) Ohio's definition of gifted children; (2) general guidelines for decision-making about identification procedures; (3) who should develop and implement district gifted identification procedures; (4) the steps to follow in gifted identification and parent notification, including pre-assessment, assessment for screening, and assessment for identification; (5) how districts should identify gifted children from populations which are frequently under-represented in the gifted identification process; (6) how districts should evaluate their gifted identification procedures; (7) terms used in the Ohio legislation for the identification and services for gifted children; and (8) using assessment instruments for the identification of children who are gifted. Extensive appendices contain relevant sections of state education legislation, a glossary of measurement terms, the Scale for the Evaluation of Gifted Identification Instruments, and other materials. (Contains 24 references.) (CR)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 456 580

IDENTIFICATION OF CHILDREN WHO ARE GIFTED:

A TECHNICAL ASSISTANCE MANUAL

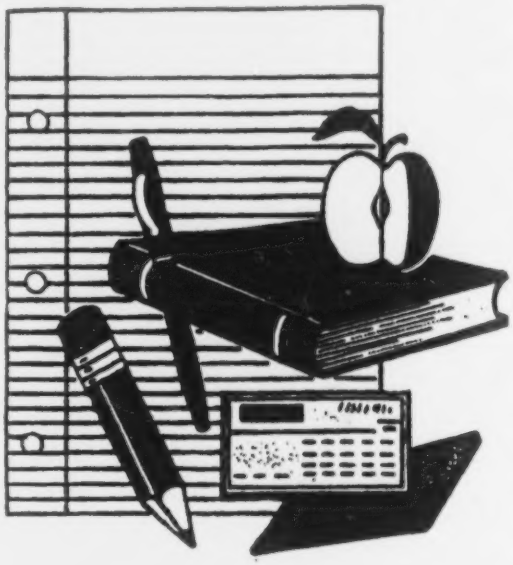
U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Herner

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1



Ohio Department of Education
Office of Special Education
Columbus, Ohio

March 2000

BEST COPY AVAILABLE

EC308564

STATE BOARD OF EDUCATION

Martha W. Wise, *President*, Avon
Sue Westendorf, *Vice President*, Napoleon

Richard E. Baker, Hollansburg
Melanie Bates, Cincinnati
Charles A. Byrne, Cleveland Heights
Diana M. Fessler, New Carlisle
Jack C. Hunter, Youngstown
Virginia E. Jacobs, Lima
William E. Moore III, Woodsfield
Deborah Owens Fink, Richfield
Marie S. Pfeiffer, Columbus
Cyrus B. Richardson, Jr., Bethel
Joseph D. Roman, Fairview Park
Emerson J. Ross, Jr., Toledo
Jennifer L. Sheets, Pomeroy
Jo Ann Thatcher, Portsmouth
James L. Turner, Cincinnati

Ex Officio Members
Senator Robert A. Gardner, Madison
Representative Charles Brading, Wapakoneta

OHIO DEPARTMENT OF EDUCATION

Susan Tave Zelman, Ph.D., Superintendent of Public Instruction

Roger Nehls, M.A., Deputy Superintendent of Public Instruction

Hank Rubin, Ph.D., Associate Superintendent of the Center for Students, Families, and Communities

John Herner, M.A., Director, Office of Special Education

Kristen Kask, Ph.D., Assistant Director, Office of Special Education

Janet Schultz, Consultant (retired December 1999), Office of Special Education

Deborah Cochran, Ph.D., Consultant, Office of Special Education

Deborah Barnett, Gifted Support Team

Sue Ellis, Gifted Support Team

Sue Heckler, Gifted Support Team

Liz Marten, Gifted Support Team

Special thanks to Susan J. Hansford, Ph.D., for the development of the *Identification of Children Who Are Gifted: A Technical Assistance Manual*, and to the following reviewers:

Donna Ford, Ph.D., The Ohio State University
Mary Landrum, Ph.D., Kent State University
Jane Piirto, Ph.D., Ashland University
W. Thomas Southern, Ph.D., Bowling Green State University

Also, a special thanks to the following support staff members:

Enola Adkins, Office of Special Education
Donna Horn, Office of Special Education
Betty Cannon, Office of Special Education
Barb Paugh, Office of Special Education

Ohio Department of Education
Office of Special Education
933 High Street
Worthington, Ohio 43085
March 2000

Identification of Children Who Are Gifted:
A Technical Assistance Manual

TABLE OF CONTENTS

Introduction 1

Section 1:
What Is Ohio's Definition of Children Who Are Gifted? 2

Section 2:
What Are General Guidelines for Decision-Making About Identification Procedures? 3

Section 3:
Who Should Develop and Implement District Gifted Identification Procedures? 5

Section 4:
What Are the Steps to Follow in Gifted Identification and Parent Notification? 6

- Stage 1: Pre-assessment 7
- Stage 2: Assessment for Screening 9
- Stage 3: Assessment for Identification 10
- Figure 1: Identification Flow Chart 12

Section 5:
How Should Districts Identify Children Who Are Gifted from Populations Which Are Frequently Under-Represented in the Gifted Identification Process? 13

Section 6:
How Should Districts Evaluate Their Gifted Identification Procedures? 15

Section 7:
Terms Used in Sections 3324.01–3324.07 of Ohio Revised Code (ORC) 17

Section 8:
Using *Assessment Instruments for the Identification of Children Who Are Gifted* 19

Appendices:

- A. Sections 3324.01–3324.07 of ORC 21
- B. 3301-51-15 Identification and Services for Children Who Are Gifted 25
- C. National Association for Gifted Children Materials 35
- D. Code of Fair Testing Practices in Education 37
- E. A Glossary of Measurement Terms 42
- F. Scale for the Evaluation of Gifted Identification Instruments (SEGII) 44
- G. Test Evaluation 48
- H. References 53

Introduction

The purpose of this publication, *Identification of Children Who Are Gifted: A Technical Assistance Manual*, is to provide districts with resources and information to aid in the development of appropriate procedures to identify children who are gifted. This document should be read in its entirety by all personnel who will be involved in the development, adoption, and implementation of the *Model Policies and Plan for the Identification of Children Who Are Gifted*. The goals of this document are

- Compliance with sections 3324.01-3324.07 of the Ohio Revised Code (ORC)
- Compliance with rule 3301-51-15 of the Ohio Administrative Code (OAC), *Rule for the Identification and Services for Children Who Are Gifted*
- Increased accuracy of local and state gifted identification reports
- Accurate identification of children who are gifted that results in access to appropriate services, including increased identification of children as gifted from culturally and linguistically diverse populations, children from low socio-economic status, and children for whom English is a second language and children who have a disability
- Uniformity and consistency of identification practices within and across school districts
- Equitable gifted identification practices which conform to professional standards
- Accurate and appropriate district policies and plans for the identification of children who are gifted

This document is organized to respond to questions that districts may have or need to answer regarding gifted identification. It provides districts with information and strategies on which they may base decisions regarding the screening and assessment of children who are gifted and which meet the requirements of sections 3324.01-3324.07 of ORC. In addition to the sections, this manual includes several appendices that contain important information and resources.

The intended audience for this document is those persons who have responsibility for implementing sections 3324.01-3324.07 of ORC and for developing, adopting, and implementing the *Model Policies and Plan for the Identification of Children Who Are Gifted.*

Section 1: What Is Ohio's Definition of Children Who Are Gifted?

Section 3324.01(B) of ORC defines children who are gifted as follows:
"'Gifted' means students who perform or show potential for performing at remarkably high levels of accomplishment when compared to others of their age, experience, or environment and who are identified under division (A), (B), (C), or (D) of section 3324.03 of the Revised Code."

Section 3324.03 of ORC provides the criteria for gifted child identification in Ohio in four areas of giftedness: superior cognitive ability, specific academic ability, creative thinking ability, and visual or performing arts ability. Appendix A contains the full text of sections 3324.01-3324.07 of ORC.

Children who are gifted in superior cognitive ability demonstrate or show potential to demonstrate high levels of ability in cognitive areas, i.e., problem solving, abstract thinking, reasoning, memory, or comprehension. These children acquire skills at a faster rate, with more depth and greater complexity, than other children of their age, experience, or environment.

Children who are gifted in specific academic ability perform or show the potential to perform at high levels of achievement in one or more content areas: mathematics, science, reading, writing or a combination of both reading and writing, and/or social studies. These children acquire skills in these academic fields at a faster rate, with more depth and greater complexity, than other children of their age, experience, or environment.

Children who are gifted in creative thinking ability demonstrate advanced ability in creativity. Creativity is not a singular ability, but is a "constellation of traits and abilities...*generally* characterized by uniqueness, originality, and the ability to make something new, novel, and useful" (Daniels, 1997).

Children who are gifted in visual or performing arts ability perform, or show the potential to perform at high levels of achievement in one or more artistic areas: drawing, painting, sculpting, music, dance, drama. These children acquire skills in these fields at a faster rate, with more depth and greater complexity, than other children of their age, experience, or environment.

Children who are gifted require services and/or activities beyond those ordinarily provided by the schools to address the pace, depth, and complexity of their learning. Giftedness is present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavors (U.S. Office of Education, 1993).

Section 2: What Are General Guidelines for Decision-Making About Identification Procedures?

There are many sources for districts to consult regarding what is considered to be best practice in gifted child identification. Guidelines and principles for best practice are listed here to help districts ensure that their identification procedures are appropriate and up-to-date with current thinking in the field of gifted child education. Within the parameters of the *Ohio Rule for the Identification and Services for Children Who Are Gifted* and sections 3324.01-3324.07 of ORC, districts are advised to use these guidelines in planning and implementing local gifted identification procedures. The guidelines which follow are derived from three sources: *Instruments Used in the Identification of Gifted and Talented Students* (Callahan, C.M., Hunsaker, S.L., Adams, C.M., Moore, S.D., & Bland, L.B., 1995); *Pre-K–Grade 12 Gifted Program Standards* (National Association for Gifted Children, 1998); *Using Tests to Identify Gifted Students* (National Association for Gifted Children, 1997).

The National Research Center on the Gifted and Talented at the University of Virginia conducted an identification and evaluation project which culminated in the publication of *Instruments Used in the Identification of Gifted and Talented Students* (Callahan, C.M., et al., 1995). Recommended identification practices over a fifteen-year period were reviewed. Specific guidelines for practice, which appeared consistently in the literature on gifted child identification, were delineated.

The National Association for Gifted Children (NAGC), the largest national organization for gifted education, developed the *Pre-K–12 Gifted Program Standards* (National Association for Gifted Children, 1998) which delineates requisite and exemplary standards for seven areas of gifted education: curriculum and instruction, program administration or management, program design, program evaluation, socio-emotional guidance and counseling, professional development, and student identification. The student identification criterion includes five guiding principles for student identification. The NAGC *Pre-K–12 Gifted Program Standards* for student identification showing both minimum and exemplary standards for each of these principles can be found in Appendix C.

The NAGC also developed a position paper to provide districts with general guidelines and precautions for the appropriate use of tests in the identification of children who are gifted, entitled *Using Tests to Identify Gifted Students* (NAGC, 1997). Noting that "testing instruments are not perfect or infallible predictors of intelligence, achievement, or ability," this NAGC position paper gives several recommendations. The full NAGC position paper is included in Appendix C.

Guidelines for Best Practices in the Identification of Children Who Are Gifted

1. Adopt a clearly defined, but broadened conception of giftedness (Callahan, et al., 1995).

2. Use multiple criteria, not multiple hurdles in the identification process (Callahan, et al., 1995).

3. Use unique, separate instrumentation for different areas of giftedness (Callahan, et al., 1995).

4. Be sure the specific instruments that are used for identifying different areas of giftedness are valid and reliable for assessing the construct under consideration (Callahan, et al., 1995).

5. Do not use a single cut-off score on an instrument or a matrix for making screening or identification decisions (Callahan, et al., 1995).

6. Base identification and placement on student need, not numbers, quotas, or slots (Callahan, et al., 1995).

7. Be aware of and capitalize on the fact that giftedness may manifest itself in different ways in different cultural or socio-economic groups (Callahan, et al., 1995).

8. Avoid the use of matrices that sum scores from several assessment tools to form a single score indicative of "giftedness" (Callahan, et al., 1995).

9. A comprehensive and cohesive process for student nomination must be coordinated in order to determine eligibility for gifted education services (NAGC, 1998).

10. Instruments used for student assessment to determine eligibility for gifted education service must measure diverse abilities, talents, strengths, and needs in order to provide students an opportunity to demonstrate any strengths (NAGC, 1998).

11. A student assessment profile of individual strengths and needs must be developed to plan appropriate intervention (NAGC, 1998).

12. All student identification procedures and instruments must be based on current theory and research (NAGC, 1998).

13. Written procedures for student identification must include, at the very least, provisions for informed consent, student retention, student reassessment, student exiting, and appeal procedures (NAGC, 1998).

14. No single measure should be used to make identification and placement decisions...no single test or instrument should be used to include a child in or exclude a child from gifted education services (NAGC, 1997).

15. Multiple measures and valid indicators from multiple sources of information must be used to assess and serve children who are gifted (NAGC, 1997).

16. Information should be gathered from multiple sources...in different ways...and in different contexts (NAGC, 1997).

17. Any school personnel who administer, use, or advise others in the use of standardized tests should be qualified to do so (NAGC, 1997).

18. All school personnel continue to explore, adapt, and evaluate comprehensive assessment alternatives to ensure all children who are gifted are given an equal opportunity to develop their potential (NAGC, 1997).

These guidelines for recommended practices in gifted child identification can assist districts in planning and implementing local gifted identification procedures which result in equitable practices and conform to professional standards.

Section 3: Who Should Develop and Implement District Gifted Identification Procedures?

Districts are required to adopt a plan for the identification of children who are gifted and will need to submit the plan to the Ohio Department of Education by January 1, 2000. Districts may wish to align the identification plan with the district's continuous improvement plan or strategic plan. The required components of this plan are delineated in sections 3324.01-3324.07 of ORC (see Appendix A).

District gifted identification procedures and plans should be developed and implemented by a team of professionals who are knowledgeable about the identification of children who are gifted as well as assessment principles and practices. Coordinators of gifted services, intervention specialists, school psychologists, or those who hold gifted licensure are knowledgeable in these areas and should be included. Local identification procedures should reflect the use of assessment strategies and instruments from *Assessment Instruments for the Identification of Children Who Are Gifted* which are appropriate and technically sound for the local district population.

District identification procedures should also follow standards of professional ethics. Districts are referred to the *Code of Fair Testing Practices in Education* (1988) located in Appendix D, and section 4732.23 of the Ohio Revised Code. The administration of standardized tests must be by those qualified to do so as the examiner qualifications for standardized tests vary from test to test. In addition, the evaluation of performances or exhibits must be conducted by trained observers who are qualified to assess superior ability of children of similar age, experience, or environment in visual and performing arts such as drawing, painting, sculpting, music, dance, and drama.

Staff development may be necessary prior to developing, adopting, or implementing local identification procedures to ensure that those who design the procedures have the requisite understanding to develop procedures which are appropriate and unbiased. In addition, before the implementation of district gifted identification procedures, districts may need to provide staff development opportunities to ensure that those who will be involved in the process, as a part of a referral process, a performance or exhibit assessment, or in test administration, have the necessary information about gifted children and the identification process to participate appropriately and meaningfully.

Section 4: What Are The Steps to Follow in Gifted Identification and Parent Notification?

Giftedness is a construct, and as such, is not directly measurable. Assessment instruments and identification strategies can only attempt to measure the behaviors and characteristics associated with that construct. Because assessment instruments and identification strategies are not perfect, and because giftedness cannot be measured directly, multiple identification strategies should be used to ensure that identification practices are appropriate and equitable. Those strategies should provide multiple opportunities to observe behaviors and characteristics associated with gifted abilities in children.

Another purpose of identification is to provide appropriate educational services to better meet individual educational needs. Identification procedures need to be designed to provide information to the educational decision-making process instead of merely labeling or "counting" children. Identification of a child as gifted should be indicative of the child's educational, social, and emotional needs so that a school district might better meet those needs.

Inappropriate or inequitable gifted identification practices can harm children. Those who are inappropriately identified, as well

as those not identified, fall prey to inappropriate expectations and in appropriate education interventions.

The identification process described in this section is comprised of three stages: pre-assessment, assessment for screening, and assessment for identification. Pre-assessment strategies apply to all students and serve to create a "pool" of students for screening and assessment. Screening strategies determine which students need further assessment. Assessment strategies provide additional data necessary for an identification decision. Students may be identified at either the screening or assessment stage of the process if appropriate data are available. Data obtained as a result of the identification process may then be used to determine appropriate education services. A flow chart showing the stages of the identification process is shown in Figure 1 on page 12.

Parent notification

Section 3324.04 (C) of ORC requires that district plans contain "Procedures for notification of parents within thirty days about the results of any screening procedure or assessment instrument and the provision of an opportunity for parents to appeal any decision about the results of any screening procedure or assessment, the scheduling of children for assessment, or the placement of a student in any program or for receipt of services."

Stage 1: Pre-assessment

"Gifted" means students who perform or show potential for performing at remarkably high levels of accomplishment when compared to others of their age, experience, or environment and who are identified under division (A), (B), (C), or (D) of section 3324.03 of the Revised Code. [Section 3324.01(B) of ORC]

Pre-assessment procedures are activities conducted to increase the number of children considered to be potentially gifted.

Pre-assessment is a systematic first step in the gifted identification process. Pre-assessment procedures are the activities the district conducts to increase the number of children considered to be potentially gifted. It consists primarily of two parts: (1) a review of existing data, and (2) a referral process. The objective of pre-assessment is to determine a "pool" of students by locating those who may need further screening and/or assessment to determine their eligibility and need for differentiated educational services.

All students should be a part of the pre-assessment procedures. The opportunity to access further assessment should be open to all students. Pre-assessment procedures should be inclusive and comprehensive, casting a wide net. Exceptionality in comparison to age peers on any single pre-assessment measure or strategy should lead to inclusion in the "pool." If there is question whether or not to include a student in the "pool" for further assessment, the answer should always be to include the student. The philosophy of pre-assessment procedures is to **include not exclude**.

Section 3324.06 (C) requires the district policy to include "...methods the district uses to ensure equal access to screening and further assessment by all district students, including minority or disadvantaged students, children with disabilities, and students for whom English is a second language..."

Districts should pay particular attention to the inclusion of pre-assessment procedures and strategies which could aid in the identification of children who are often overlooked in gifted identification, specifically children from culturally and linguistically diverse populations, children from low socio-economic status, and children who may have a disability. It is important not to eliminate children from the identification process too early with inappropriately narrow or biased pre-assessment procedures that could limit the ability to ultimately identify and serve children appropriately. At the pre-assessment stage of the gifted identification process, no student should be overlooked.

Carefully done, pre-assessment will ensure that the district considers all of its children as it begins the process of identifying those who are gifted.

Carefully done, pre-assessment will assist districts in meeting the requirements of section 3324.06 of ORC.

Strategies for pre-assessment

Appropriate strategies for pre-assessment will vary depending on the age of the student, the area of giftedness being considered, and the demographics of the student population of the local district. Multiple strategies for pre-assessment that allow many ways for children to be placed in the "pool" for further screening and assessment should be used.

Strategies for pre-assessing and developing a greater number of students in the "pool" include, but are not limited to, the following:

- Referrals from multiple sources: school personnel, parents/guardians, students (including self and peer referrals), community
- Grades, progress reports
- Test data
- Portfolios
- Checklists, rating scales, inventories
- Interviews with students, parents/guardians
- Student products, performances, auditions

As districts design pre-assessment procedures, it is important to select a balanced combination of strategies which permit multiple ways for potentially gifted children to be identified. Strategies should consist of a balance between academic and non-academic sources, formal and informal strategies, standardized and non-standardized assessments, subjective and objective data, and qualitative and quantitative data.

Group achievement or ability tests should not be the only strategy used for pre-assessment. *Cut-off scores for inclusion in the "pool" must be lower than the criteria required for gifted identification.* At the pre-assessment stage, test scores should be used as an inclusionary strategy to include in the "pool" children who may be overlooked by other measures. High performance on individual subtests, rather than composite scores, is sufficient and appropriate for inclusion at the pre-assessment stage.

Ohio Proficiency Tests are administered in a standard or set way to all students and therefore may be considered standardized tests. They are appropriate for use only as a part of the pre-assessment stage of identification and should not be the sole strategy used at pre-assessment.

Making decisions about the pre-assessment data/ Proceeding to the next stage

Information gathered during the pre-assessment phase should be compiled for each student. An accurate record-keeping system is critical to the overall effectiveness and efficiency of the identification process. All students who emerge as a result of any of the pre-assessment procedures should move to the next stage of the identification process – screening.

Parent notification

Pre-assessment is a set of procedures and strategies to increase the "pool" of children who will be screened and/or assessed to determine if they meet the criteria to be identified as gifted in one of the four areas of giftedness.

Stage 2: Assessment for Screening

The screening stage examines the data gathered from the pre-assessment stage and determines if additional assessment is necessary.

In making decisions about additional assessment, existing test data for students cannot be the sole determining criteria. Districts should examine all available information about a student to determine if any evidence of possible giftedness exists for that student and conduct necessary additional assessment. Most students who emerge from the pre-assessment stage would be expected to move to the assessment stage if required data are not available, and/or they are not identified at the screening stage. Only in situations in which there is clearly no evidence of potential giftedness in any of the four areas of giftedness listed in sections 3324.01-3324.07 of ORC should a student be "screened out" of further assessment.

Note: An assessment instrument from the Ohio Department of Education's approved list may be used at the pre-assessment level to increase the potential "pool" of students with a lower score than is required for identification. However, another instrument from the approved list must be used for screening and/or assessment and ultimately, identification.

Districts should examine the available data for each student from the screening phase to determine if the information is sufficient and appropriate for an identification decision according to sections 3324.01-3324.07 of ORC. If the information is sufficient and appropriate, the identification decision is made and the student's educational needs are determined. Parents receive notification following the screening process.

Districts may choose to conduct some type of testing for students in the screening "pool" to determine which students need further assessment. Certain tests and assessment instruments are appropriate for use at the screening stage as specified in the *Assessment Instruments for the Identification of Children Who Are Gifted*. District-determined cutoff scores, to move students from the screening stage to the assessment stage, should be lower than the scores necessary for identification in section 3324.03 of ORC.

Parent notification

Screening reduces the number of students who will be provided additional assessment to determine eligibility. Although the assessment instruments and process for screening children in the area of specific academic ability may be very different from those used to screen for the visual and performing arts ability, the general process is the same.

Parents must be notified within thirty days of the results of the screening.

Stage 3: Assessment For Identification

Assessment strategies provide additional data necessary for an identification decision and the delivery of services. Strategies for additional assessment include the individual and group testing related to the requirements of sections 3324.01-3324.07 of ORC.

In the selection of assessment strategies and instruments, districts shall refer to Section 8 of this manual. Once additional assessment has been completed, the data obtained throughout the stages of identification are evaluated, the identification decision is made, the student's educational needs are determined and planned for, and the student's parents receive notification. In some cases, pre-assessment and/or screening data may be exceptionally strong, conflicting with assessment results. In those situations, it may be appropriate to do further assessment for those students, using alternative strategies or instruments from the approved list. In all cases, identification must follow criteria and be based on the Ohio Department of Education's approved instruments.

Districts are cautioned not to use matrices (in which scores and/or information from various sources are plotted and added together) for decision-making at any of the stages in the identification process (Callahan, et.al., 1995; Feldhusen & Jarwan, 1993; and Richert, 1991). This practice is statistically unsound and is an inappropriate use of data. The use of multiple assessment measures in this way can obscure the strengths of many students, particularly minority and disadvantaged students (Richert, 1991).

Parent notification

Assessment is the final step in the identification of children who are gifted.

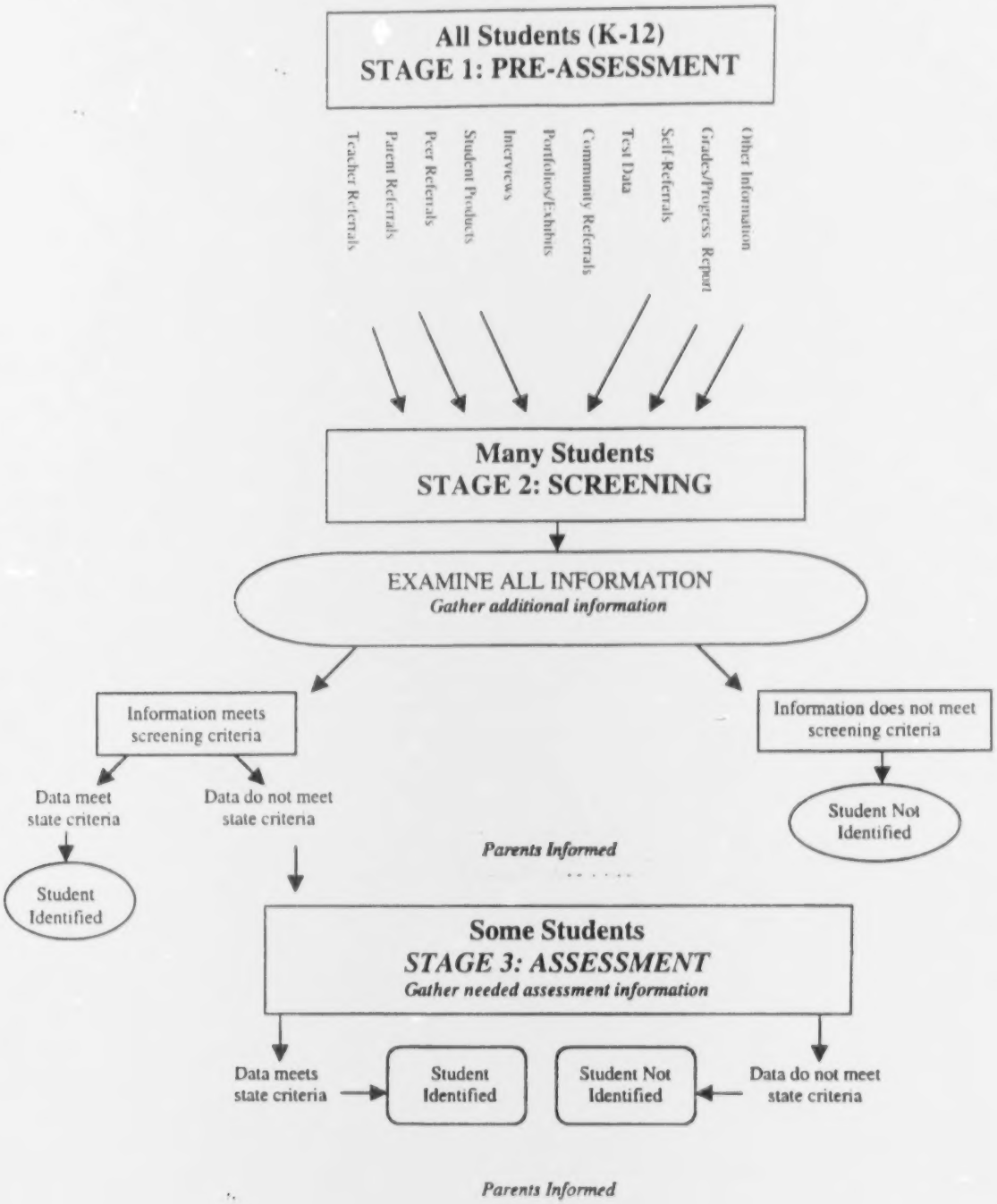
Parents must be notified within thirty days of the results of the assessment process.

Parent appeal

Section 3324.04(C) of ORC requires districts to provide "...opportunity for parents to appeal any decision about the results of any screening procedure or assessment, the scheduling of children for assessment, or the placement of a student in any program or for receipt of services..."

The law also requires districts to establish methods for resolving disagreements between parents and the district concerning identification and placement decisions. Please see *Model Policies and Plan for the Identification of Children Who Are Gifted.*

Figure 1: Identification Flow Chart



Copyright © Susan J. Hansford 1999. Used by permission.

Section 5: How Should Districts Identify Children Who Are Gifted From Populations Which Are Frequently Under-Represented in the Gifted Identification Process?

Special Considerations: Children Who Are Gifted From Culturally and Linguistically Diverse Populations or From Low Socio-Economic Status

Giftedness is not bound by race, culture, language, age, gender, or income. Giftedness exists in children from all racial, cultural, and ethnic groups; in the presence of handicapping conditions; and in children from impoverished environments (U.S. Department of Education, 1993). Children from these populations are frequently under-represented in programs for children who are gifted. Therefore, districts shall develop identification procedures which ensure equity of access to gifted identification and services to all children.

An understanding of the impact of culture on assessment shall guide district practices and decisions. Children from racial, cultural, or ethnic minorities, children from homes with economic barriers, and children for whom English is a second language are frequently "screened out" early in the identification process and, as a result, never access more in-depth assessment. Districts should use of a variety of strategies and instruments throughout the pre-assessment, screening, and assessment stages of the identification process to aid in more equitable access to identification and services.

Ford and Harris (1999) suggest five governing principles to use as guidelines for equity in the assessment process:

1. Educators are cognizant of relevant research and practice issues regarding the population being assessed
2. Educators recognize diversity and culture as significant parameters in understanding psychological processes
3. Educators respect the roles of family members as well as community structure, hierarchies, values, and beliefs within the students' culture
4. Educators interact in the language requested by students, and, if not feasible, they make appropriate referral or find a translator
5. Educators consider the impact of adverse social, environmental, and political factors in assessment and intervention (pp. 55-56)

Ford and Harris (1999) further suggest four accommodations which would be appropriate at the *pre-assessment level* and may be made to better assess the abilities of minority children:

1. Adapt instruments (e.g., modify the instruments relative to language)
2. Renorm the selected instruments based on local norms and needs

3. Modify predetermined cutoff scores for minority students
4. Use alternative instruments thought to measure the same construct (p. 54)

These accommodations might be used by districts during the pre-assessment and screening stages of the identification process. Using alternative instruments thought to measure the same construct is also an appropriate strategy for the assessment stage of the identification process, provided the alternative instruments and criteria used for the final identification decision are included on the state list of approved instruments. In addition, some standardized tests may include alternative norms for special populations of students. Districts are referred to the Ohio Department of Education's *Assessment Instruments for the Identification of Children Who Are Gifted* for this information.

Decisions about pre-assessment, screening, and assessment instruments and procedures must be based on their appropriateness with the district's population of students. Adherence to ethical standards of testing (see Section 8 of this manual) will enable districts to more effectively and equitably assess the abilities of all students (Ford and Harris, 1999). Districts must be aware of issues of test bias as it pertains to gifted identification. Ford and Harris (1999) cite content validity, construct validity, and predictive validity as three areas for concern. In the selection of tests, districts should examine these types of validity as they pertain to the district's population of students. Districts should monitor their effectiveness in this regard by (1) disaggregating their pre-assessment, screening, assessment, identification, and placement information; and (2) analyzing the results of the disaggregation and revising procedures as necessary for more equitable access.

Inappropriate pre-assessment and screening procedures can screen out children from culturally and linguistically diverse populations, low socio-economic environments, or for whom English is a second language too early in the identification process – before they access individualized testing. Districts must ensure that pre-assessment and screening procedures are equitable and permit access to further assessment for children from these populations.

It is important to note that for some students who are culturally and linguistically diverse, from low socio-economic environments, or for whom English is a second language, traditional tests (particularly well-researched individual tests) may be appropriate indicators of ability, achievement, or potential. For other students from these groups, traditional tests may not be good indicators and districts may need to do more and different types of assessment with those students.

Special Considerations: Children With Disabilities

Identifying children who are gifted and also have disabilities presents additional challenges. Children who are gifted also may be deaf, hard of hearing, learning disabled, blind, exhibit serious emotional disturbance, or may have physical disabilities. The difficulty in identifying these children lies in the fact that the disabilities frequently mask the giftedness. Districts should include strategies at the pre-assessment stage which search for giftedness among children with disabilities. One pre-assessment strategy might be a review of special education referrals and multifactored evaluation data to search for already existing assessment data. The inclusion of special education teachers, paraprofessionals, and parents in the referral process at the pre-assessment stage of gifted identification will also help to ensure that these children are not overlooked.

Special Considerations: Primary-Age Children

Early identification of children who are gifted can help prevent underachievement (Whitmore, 1980). It is particularly important that economically disadvantaged and ethnically diverse students be identified early (Ford, 1996).

The identification of primary-age children who are gifted (grades K-3) requires strategies and tools for both initial pre-assessment and subsequent screening and assessment which are developmentally appropriate for young children, as well as appropriate for the identification of giftedness. In the selection of pre-assessment and assessment strategies and tools for use with young children, districts should guard against ceiling effects in content, as well as norms, of tests recommended for young children and possible developmental inappropriateness of tests with higher ceiling levels.

Section 6: How Should Districts Evaluate Their Gifted Identification Procedures?

Evaluation of the gifted identification process can help districts identify strengths and weaknesses, document successes and improvements, and provide data to assist in making revisions to the process. Districts should plan for evaluation of their identification procedures as a part of the continuous improvement process.

Sections 3324.01-3324.07 of ORC and the *Ohio Rule for the Identification and Services for Children Who Are Gifted* have very specific requirements. In addition, this manual has emphasized many important elements of appropriate gifted identification practice to guide districts as they implement identification procedures. At least three aspects of the identification process

should be evaluated: the adequacy of the procedures, the implementation of the procedures, and the effectiveness of the procedures. Suggested areas for evaluation are listed below.

These suggested areas for evaluation should be considered a starting point for districts as they implement evaluation procedures for gifted identification.

To evaluate the adequacy of the identification procedures:

- All requirements of sections 3324.01-3324.07 of ORC and the *Ohio Rule for the Identification and Services for Children Who Are Gifted* are met
- A balanced variety of instruments and strategies is used at all stages of the identification process
- Identification procedures are efficient
- Parents/guardians are involved in the identification process
- Valid and reliable instruments are used

To evaluate the implementation of the identification procedures:

- Identification procedures are being implemented as designed
- Standards of fair testing practices are being followed
- Appropriate personnel are involved

To evaluate the effectiveness of the identification procedures:

- Procedures effectively identify children who are gifted
- Identification information helps to determine appropriate services
- Procedures effectively result in appropriate interventions to meet identified needs
- Procedures at each stage of identification – pre-assessment, screening, and assessment, as well as appeal/review procedures, are equitable: children from minority populations, disadvantaged environments, or for whom English is a second language have equal access to each stage of the identification process and to subsequent services

Districts should keep written records related to the identification process for each screened and assessed child, including area(s) of identified giftedness, dates of assessments and identification(s), and records of parent notification. These written records should be provided to the parent/guardian upon request. Including demographic data, such as grade level, age, gender, ethnicity, and socio-economic status in the written records will enable districts to monitor the effectiveness of identification procedures.

Section 7: Terms Used in Sections 3324.01-3324.07 of ORC

In this section, terms used in sections 3324.01-3324.07 of ORC criteria for gifted identification are boldfaced. Districts should also refer to Appendix E which contains a glossary of terms.

Types of Tests

Tests may be **standardized** or non-standardized. Standardized tests are administered, scored, and interpreted in a standard or set way. Standardized tests are usually normed using a representative group. For example, a standardized test that is **nationally normed** was standardized using a nationally representative sample of subjects.

Individual tests are administered to students, one student at a time. **Group tests** are administered to more than one student at the same time. Individual tests are generally considered more accurate estimates of a student's ability or achievement, within the parameters of fair testing practices. In general, appropriately selected individual tests are more sensitive to differences between students and will have more items and higher ceilings than group tests. Group tests are usually not designed for the purpose of individual student placement decisions. The results of group and individual tests are not interchangeable.

Types of Scores

Percentile scores compare a student's performance with the norming sample and express that comparison as the percent of those in the norming sample whose performance was below that of the student.

Standard scores are used in sections 3324.01-3324.07 of ORC criteria for superior cognitive ability and creative thinking ability. Standard scores describe a student's performance by its relationship to the norming sample's mean score.

Test scores may be derived from comparison to age peers or grade peers. These age-level norms and grade-level norms are available for most tests. Both types of norms are useful for different purposes. In general, age-level norms are more sensitive to individual differences between children and are more appropriate to use for identification decision-making. The use of grade-level norms may be helpful for decision-making about educational services/placement.

The **mean** is a type of average score. A **standard deviation** describes how scores in a norming sample were distributed around the mean score. The normal curve, or "bell-shaped curve," shows this distribution graphically. On a test with a normal distribution, 95% of the scores would fall within +2 and –2 standard deviations of the mean.

Statistical Terms

Any score on a test is only an estimate. We cannot measure achievement or ability exactly. The **standard error of measurement** is a statistic which represents the amount of measurement error in a score and is used to determine a range of scores within which a true score is likely to fall. The standard error of measurement is directly related to the reliability of the instrument: the larger the standard error of measurement, the lower the reliability. In applying the standard error of measurement to the identification of children who are gifted, districts should use the confidence level recommended in the technical manual for the test which is being used.

Districts must calculate the "...two (for superior cognitive ability) and one (for creative thinking ability) standard deviations above the mean minus the standard error of measurement..." required by sections 3324.01-3324.07 of ORC. Districts should first determine the score which corresponds to the "two [one] standard deviations above the mean," then subtract the standard error of measurement to determine the cutoff score. For example, on a test with a standard mean score of 100, a standard deviation of 15, and a standard error of measurement of ± 4, two standard deviations above the mean equates to a score of 130, minus the standard error of measurement, resulting in a cutoff score of 126. This method is an inclusionary interpretation of the use of standard error of measurement.

Reliability

Reliability refers to the consistency and dependability of measurement, the extent to which a test consistently measures what it is intended to measure. For example, on a test with high reliability, a student would be expected to obtain a similar score if the test were readministered. Reliability is most often expressed as a coefficient, with a coefficient of 1.0 meaning perfect reliability. Tests or instruments with low reliability coefficients should be avoided.

Validity

Validity refers to the degree to which a test measures what it is supposed to measure. Tests are valid for particular purposes and particular groups; however, not all tests are valid for all students and all purposes. For example, a test of mathematics is not a valid measure of spelling; a test of high school geometry is not a valid measure of second grade mathematics; and the norms of a test which was normed using a group of upper-middle class students in Boston are not valid for use with low-income students in California. There are many types of validity: content, construct, concurrent, and predictive. The intended purpose for the use of a test determines which types of validity are important.

Audition/Performance

Audition/performance in the areas of music, drama/theatre, and dance refers to the act of performing an existing work that calls for interpretation and recreating skills or performing an original work that demonstrates expression of ideas and feelings.

Section 8: Using *Assessment Instruments for the Identification of Children Who Are Gifted*

Assessment instruments are designed for specific purposes and are standardized using specific populations. A basic principle of appropriate testing practice is the selection and use of instruments which are appropriate for the population and construct being assessed. The placement of an instrument on the "approved list" does not mean it is appropriate for use with all students or in every district.

Districts should select assessment instruments which best fit each district's population.

Districts shall select instruments which (a) meet the purpose for which they are to be used, that is, the stage of the identification process as well as the type/area of giftedness being assessed, and (b) are appropriate for each district's population of students. Further information about the selection of assessment instruments may be found in texts such as *Assessment (7th edition)* (Salvia and Ysseldyke, 1998) and *Assessment of Children (3rd edition)* (Sattler, 1992). In selecting instruments from the *Assessment Instruments for the Identification of Children Who Are Gifted*, districts shall follow the standards of the *Code of Fair Testing Practices in Education* located in Appendix D (Joint Committee on Testing Practices, 1988). Districts are strongly encouraged to investigate the research literature regarding instruments under consideration for use to determine their appropriateness and technical adequacy for their students. Several resources are available to assist districts in this process: *The Thirteenth Mental Measurements Yearbook* (Impara, J.C. & Plake, B.S., 1998); *Tests in Print IV* (Murphy, L.L., Conoley, J.C., & Impara, J.C., 1994); and the ERIC Clearinghouse on Assessment and Evaluation (www.ericae.net).

In the test selection process, districts may wish to use the "Scale for Evaluating Gifted Identification Instruments (SEGII)" found in *Instruments Used in the Identification of Gifted and Talented Students* (Callahan, et al., 1995). This instrument is reproduced in Appendix F. An additional resource on test selection, although not specific to gifted identification, is included in Appendix G. A glossary of common measurement terms is included in Appendix E.

Special Considerations

In the selection of tests, districts should consider the age and abilities of the students who will be tested in relationship to the norming sample for the tests being considered (referenced in the individual publisher's technical manual for the test). Because children who are gifted, by definition, are performing or are capable of performing beyond their age peers, many tests will not have high enough ceilings. The ceiling is the point at which testing is stopped, because it is assumed the student(s) will not succeed on the remaining items. A test with a ceiling too low will run out of test items before the student's ability or achievement is fully tapped. In that case, the ability/achievement of the student is underestimated. Out-of-level testing, in which above-grade level tests are administered to children who may be gifted, can help alleviate some ceiling effects.

Terms Used in Visual and Performing Arts

A "display of work" or "exhibition" in visual art refers to a collection of original works of art that are shown in a formal/informal setting such as in an art exhibition or a portfolio.

"Audition" and "performance" in music, drama/theatre, and dance refer to the act of consistently performing existing works that call for interpreting and recreating skills, or performing original works that demonstrate expression of ideas and feelings. Examples of performance are singing, playing an instrument, role-playing, acting, dancing and improvising. An audition/ performance can occur in formal and/or informal environments, such as on an auditorium stage or in the classroom.

"Superior ability" includes natural propensity, acquired technique, and aesthetic sensibility.

Appendix A:
Sections 3324.01 – 3324.07 of
Ohio Revised Code (ORC)

Sections 3324.01 – 3324.07 of ORC

Section 3324.01

As used in this section and sections 3324.02 through 3324.06 of the Revised Code:

(A) "Approved" means approved by the Department of Education and included on the list compiled by the Department under section 3324.02 of the Revised Code.

(B) "Gifted" means students who perform or show potential for performing at remarkably high levels of accomplishment when compared to others of their age, experience, or environment and who are identified under division (A), (B), (C), or (D) of section 3324.03 of the Revised Code.

(C) "School district" does not include a joint vocational school district.

(D) "Specific academic ability field" means one or more of the following areas of instruction:

(1) Mathematics;

(2) Science;

(3) Reading, writing, or a combination of these skills;

(4) Social studies.

Section 3324.02

(A) The Department of Education shall construct lists of existing assessment instruments it approves for use by school districts, and may include on the lists and make available to school districts additional assessment instruments developed by the Department. Whenever possible, the Department shall approve assessment instruments that utilize nationally recognized standards for scoring or are nationally normed. The lists of instruments shall include:

(1) Initial screening instruments for use in selecting potentially gifted students for further assessment;

(2) Instruments for identifying gifted students under section 3324.03 of the Revised Code.

(B) The Department, under Chapter 119. of the Revised Code, shall also adopt rules for the administration of any tests or assessment instruments it approves on the list required by division (A) of this section and for establishing the scores or performance levels required under section 3324.03 of the Revised Code.

(C) The Department shall ensure that the approved list of assessment instruments under this section includes instruments that allow for appropriate screening and identification of gifted minority and disadvantaged students, children with disabilities, and students for whom English is a second language.

(D) Districts shall select screening and identification instruments from the approved lists for inclusion in their district policies.

(E) The Department shall make initial lists of approved assessment instruments and the rules for the administration of the instruments available by September 1, 1999.

Section 3324.03

The board of education of each school district shall identify gifted students in grades kindergarten through twelve as follows:

(A) A student shall be identified as exhibiting "superior cognitive ability" if the student did either of the following within the preceding twenty-four months:

(1) Scored two standard deviations above the mean, minus the standard error of measurement, on an approved individual standardized intelligence test administered by a licensed psychologist;

(2) Accomplished any one of the following:

(a) Scored at least two standard deviations above the mean, minus the standard error of measurement, on an approved standardized group intelligence test;

(b) Performed at or above the ninety-fifth percentile on an approved individual or group standardized basic or composite battery of a nationally normed achievement test;

(c) Attained an approved score on one or more above-grade level standardized, nationally normed approved tests.

(B) A student shall be identified as exhibiting "specific academic ability" superior to that of children of similar age in a specific academic ability field if within the preceding twenty-four months the student performs at or above the ninety-fifth percentile at the national level on an approved individual or group standardized achievement test of specific academic ability in that field. A student may be identified as gifted in more than one specific academic ability field.

(C) A student shall be identified as exhibiting "creative thinking ability" superior to children of a similar age, if within the previous twenty-four months, the student scored one standard deviation above the mean, minus the standard error of measurement, on an approved individual or group intelligence test and also did either of the following:

(1) Attained a sufficient score, as established by the Department of Education, on an approved individual or group test of creative ability;

(2) Exhibited sufficient performance, as established by the Department of Education, on an approved checklist of creative behaviors.

(D) A student shall be identified as exhibiting "visual or performing arts ability" superior to that of children of similar age if the student has done both of the following:

(1) Demonstrated through a display of work, an audition, or other performance or exhibition, superior ability in a visual or performing arts area;

(2) Exhibited sufficient performance, as established by the Department of Education, on an approved checklist of behaviors related to a specific arts area.

Section 3324.04

The board of education of each school district shall adopt a plan by January 1, 2000, for identifying gifted students. The plan shall be submitted to the Department of Education for approval. The Department shall approve the plan within sixty days if it contains all of the following:

(A) A description of the assessment instruments from the list adopted by the Department that the district will use to screen and identify gifted students;

(B) Acceptable scheduling procedures for screening and for administering assessment instruments for identifying gifted students. These procedures shall provide:

(1) At least two opportunities a year for assessment in the case of students requesting assessment or recommended for assessment by teachers, parents, or other students;

(2) Assurance of inclusion in screening and assessment procedures for minority and disadvantaged students, children with disabilities, and students for whom English is a second language;

(3) Assurance that any student transferring into the district will be assessed within ninety days of the transfer at the request of a parent.

(C) Procedures for notification of parents within thirty days about the results of any screening procedure or assessment instrument and the provision of an opportunity for parents to appeal any decision about the results of any screening procedure or assessment, the scheduling of children for assessment, or the placement of a student in any program or for receipt of services;

(D) A commitment that the district will accept scores on assessment instruments provided by other school districts or trained personnel outside the school district, provided the

assessment instruments are on the list approved by the Department of Education under section 3324.02 of the Revised Code.

The district's plan may provide for the district to contract with any qualified public or private service provider to provide screening or assessment services under the plan.

The Department shall assist any district whose plan it disapproves under this section to amend the plan so that it meets the requirements of this section.

Section 3324.05

(A) Each school district shall submit an annual report to the Department of Education specifying the number of students in each of grades kindergarten through twelfth screened, the number assessed, and the number identified as gifted in each category specified in section 3324.03 of the Revised Code.

(B) The Department of Education shall audit each school district's identification numbers at least once every three years and may select any district at random or upon complaint or suspicion of noncompliance for a further audit to determine compliance with sections 3324.03 to 3324.06 of the Revised Code.

(C) The Department shall provide technical assistance to any district found in noncompliance under division (B) of this section. The Department may reduce funds received by the district under Chapter 3317. of the Revised Code by any amount if the district continues to be noncompliant.

Section 3324.06

The board of education of each school district shall adopt a statement of its policy for the screening and identification of gifted students and shall distribute the policy statement to parents. The policy statement shall specify:

(A) The criteria and methods the district uses to screen students and to select students for further assessment who perform or show potential for performing at remarkably high levels of accomplishment in one of the gifted areas specified in section 3324.03 of the Revised Code;

(B) The sources of assessment data the district uses to select students for further testing and an explanation for parents of the multiple assessment instruments required to identify gifted students under section 3324.03 of the Revised Code;

(C) An explanation for parents of the methods the district uses to ensure equal access to screening and further assessment by all district students, including minority or disadvantaged students, children with disabilities, and students for whom English is a second language;

(D) Provisions to ensure equal opportunity for all district students identified as gifted to receive any services offered by the district;

(E) Provisions for students to withdraw from gifted programs or services, for reassessment of students, and for assessment of students transferring into the district;

(F) Methods for resolving disagreements between parents and the district concerning identification and placement decisions.

A copy of the district's policy adopted under this section shall accompany the district's plan submitted to the Department of Education under section 3324.04 of the Revised Code.

Section 3324.07

(A) The board of education of each school district shall develop a plan for the service of gifted students enrolled in the district that are identified under section 3324.03 of the Revised Code. Services specified in the plan developed by each board may include such options as the following:

(1) A differentiated curriculum;

(2) Cluster grouping;

(3) Mentorships;

(4) Accelerated course work;

(5) The post-secondary enrollment option program under Chapter 3365. of the Revised Code;

(6) Advanced placement;

(7) Honors classes;

(8) Magnet schools;

(9) Self-contained classrooms;

(10) Independent study;

(11) Other options identified in rules adopted by the Department of Education.

(B) Each board shall file the plan developed under division (A) of this section with the Department of Education by December 15, 2000. The Department shall review and analyze each plan to determine if it is adequate and to make funding estimates.

(C) Unless otherwise required by law, rule, or as a condition for receipt of funds, school boards may implement the plans developed under division (A) of this section, but shall not be required to do so until further action by the general assembly or the state superintendent of public instruction.

Appendix B:
3301-51-15 Identification and Services for Children Who Are Gifted

3301-51-15 Identification and Services for Children Who Are Gifted

(A) DEFINITIONS

(1) "*GIFTED*" means students who perform or show potential for performing at remarkably high levels of accomplishment when compared to others of their age, experience, or environment and who are identified under division (a), (b), (c), or (d) of section 3324.03 of the Revised Code.

(2) "*SCHOOL DISTRICT*" does not include a joint vocational school district.

(3) "*SPECIFIC ACADEMIC ABILITY FIELD*" means one or more of the following areas of instruction:

(a) Mathematics;

(b) Science;

(c) Reading, writing, or a combination of these skills; and/or

(d) Social studies.

(4) "*TRAINED INDIVIDUAL*" means a person who by training or experience is qualified to perform the prescribed activity, e.g., educator, private teacher, higher education faculty member, working professional in the field of visual or performing arts or a person trained to administer assessments/checklists to identify gifted ability in creative, visual or performing arts.

(5) "*VISUAL OR PERFORMING ARTS ABILITY*" means ability in areas such as drawing, painting, sculpting, music, dance, drama.

(B) GENERAL

(1) All minimum standards for elementary and secondary schools shall be followed for children who are gifted.

(2) The district may incorporate any or all identification and service plans for children who are gifted into the district's comprehensive or continuous improvement plan.

(C) ELIGIBILITY

(1) Definition

The board of education of each district shall identify gifted children in grades kindergarten through twelfth as follows:

(a) A child shall be identified as exhibiting "superior cognitive ability" if the child did either of the following within the preceding twenty-four months:

(i) Scored two standard deviations above the mean, minus the standard error of measurement, on an approved individual standardized intelligence test administered by a licensed psychologist; or

(ii) Accomplished any one of the following:

(a) Scored at least two standard deviations above the mean, minus the standard error of measurement, on an approved standardized group intelligence test,

(b) Performed at or above the ninety-fifth percentile on an approved individual or group standardized basic or composite battery of a nationally normed achievement test, or

(c) Attained an approved score on one or more above grade-level standardized, nationally normed approved tests.

(b) A child shall be identified as exhibiting "specific academic ability" superior to that of children of similar age in a specific academic ability field if within the preceding twenty-four months the child performs at or above the ninety-fifth percentile at the national level on an approved individual or group standardized achievement test of specific academic ability in that field. A child may be identified as gifted in more than one specific academic ability field.

(c) A child shall be identified as exhibiting "creative thinking ability" superior to children of a similar age, if within the previous twenty-four months, the child scored one standard deviation above the mean, minus the standard error of measurement, on an approved individual or group intelligence test and also did either of the following:

(i) Attained a sufficient score, as established by the Department of Education, on an approved individual or group test of creative ability; or

(ii) Exhibited sufficient performance, as established by the Department of Education, on an approved checklist by a trained individual of creative behaviors.

(d) A child shall be identified as exhibiting "visual or performing arts ability" superior to that of children of similar age if the child has done both of the following:

(i) Demonstrated to a trained individual through a display of work, an audition, or other performance or exhibition, superior ability in a visual or performing arts area; and

(ii) Exhibited to a trained individual sufficient performance, as established by the Department of Education, on an approved checklist of behaviors related to a specific arts area.

(2) District Identification Plan

The board of education of each district shall adopt a plan as specified in section 3324.04 of the Revised Code for identifying children who are gifted.

(a) The plan, in accordance with Department of Education guidelines, shall be submitted to the Department of Education for approval immediately following district board of education approval.

(b) The Department of Education shall approve the plan within sixty days if it contains the following:

(i) A description of the assessment instruments from the list approved by the Department that the district will use to screen and identify gifted children;

(ii) Acceptable scheduling procedures for screening and for administering assessment instruments for identifying gifted children. These procedures shall provide:

(a) At least two opportunities a year for assessment in the case of children who have requested assessment or who have been recommended for assessment by teachers, parents, or other children,

(b) Assurance of inclusion in screening and assessment procedures for minority and disadvantaged students, children with disabilities, and children for whom English is a second language, and

(c) Assurance that any child transferring into the district will be assessed within ninety days of the transfer at the request of a parent;

(iii) Procedures for notification of parents within thirty days about:

(a) The results of any screening procedure or assessment instrument, and

(b) The provision of an opportunity for parents to appeal any decision about the results of any screening procedure or assessment, the scheduling of children for assessment, or the placement of a child in any program or for receipt of services; and

(iv) A commitment that the district will accept scores on assessment instruments provided by other districts or trained personnel outside the district, provided the assessment instruments are on the list approved by the Department of Education under section 3324.02 of the Revised Code.

(a) The district's plan may provide for the district to contract with any qualified public or private service provider to provide screening or assessment services under the plan.

(b) The district shall consider test scores from reassessment, from other districts or from trained personnel outside the district, as equivalent to district testing as set forth in section (C) (1) Eligibility and may not exclude a child from service options due to reassessment, test scores from other districts or test scores from trained personnel outside the district if they meet the criteria specified in section(C) (1) Eligibility. Districts shall not alter eligibility through any consideration or computation other than as set forth in section (C) (1) Eligibility.

(c) The district shall work with the Department of Education to amend the plan and ensure the plan meets approval, and if the district changes the plan such changes shall be submitted to the Department of Education immediately following district board of education approval.

(3) Screening/Identification

The board of education of each district shall adopt a statement of its policy for the screening and identification of children who are gifted and shall distribute the policy statement to parents. The policy statement shall specify:

(a) The criteria and methods the district uses to screen children and to select children for further assessment who perform or show potential for performing at remarkably high levels of accomplishment in each of the gifted areas specified in this rule;

(b) The sources of assessment data the district uses to select children for further testing and an explanation for parents of the multiple assessment instruments required to identify gifted children under section 3324.03 of the Revised Code;

(c) An explanation for parents of the method the district uses to ensure equal access to screening and further assessment by all district children, including minority or disadvantaged children, children with disabilities, and children for whom English is a second language;

(d) Provisions to ensure equal opportunity for all district children identified as gifted to receive any services offered by the district;

(e) Provisions for children to withdraw from gifted programs and services, for reassessment of children, and for assessment of children transferring into the district;

(f) Methods for resolving disagreements between parents and the district concerning identification and placement decisions; and

(g) A copy of the district's policy adopted under this section shall accompany the district's plan submitted to the Department of Education under section 3324.04 of the Revised Code.

(4) Testing/Assessment

(a) Districts shall select screening and identification instruments from the Department of Education's approved lists for inclusion in their district's plan. Assessments must measure the specific area of gifted ability.

(b) The district shall ensure that the use of evaluation instruments:

(i) Are provided and administered in the child's native language or other mode of communication, unless it is clearly not feasible to do so;

(ii) Have been validated for the specific purpose for which they are used; and

(iii) Are administered by qualified personnel in conformance with the instructions provided by their producer.

(c) The district shall select instruments, from the approved list, that will allow for appropriate screening and identification of minority or disadvantaged children, children with disabilities, and children for whom English is a second language.

(d) Tests are selected and administered so as to best insure that when a test is administered to a child with impaired sensory, manual or speaking skills, the test results accurately reflect the child's aptitude or achievement level or whatever other factors the test purports to measure, rather than reflecting the child's impaired sensory, manual or speaking skills except where those skills are factors which the test purports to measure.

(e) A list of the approved instruments and checklists will be established and published by the Department of Education that will include, as appropriate, the criteria for judging technical adequacy of assessments and instruments.

(D) SERVICES FOR CHILDREN WHO ARE GIFTED

(1) Placement for district services shall be in conformance with the criteria used in determining eligibility. Subjective criteria such as teacher recommendations may be used to determine appropriate service placement but shall not be used to exclude a child from service in the superior cognitive and specific academic areas who would otherwise be eligible.

(2) A continuum of services specified in the plan developed by each district board of education may include such options as the following:

(a) Instructional Settings and Programs

Instruction for gifted children shall be provided during the regular school day. Such instruction may be provided in large groups, small groups, and/or individually in a variety of alternative settings, including:

(i) Regular class including:

(a) Grade acceleration,

(b) Early entrance, and

(c) Cluster grouping;

(ii) Resource rooms;

(iii) Self-contained classrooms;

(iv) Magnet schools;

(v) Advanced placement;

(vi) Post secondary enrollment options under Chapter 3365 of the Revised Code;

(vii) Honors classes; and

(viii) Educational options.

(b) Instruction

The depth, breadth, and pace of instruction, based on the adopted course of study in appropriate content areas, shall be differentiated and may include:

(i) Differentiated curriculum related to:

(a) Replacement or extension of the regular curriculum,

(b) Broad based issues,

(c) Themes or problems,

(d) Multidisciplinary study, and

(e) Curriculum compacting;

(ii) Methods to stimulate high level thought, including critical thinking, divergent thinking, abstract thinking, logical reasoning, and problem solving;

(iii) Oral, written, and artistic expression;

(iv) Independent study and research methods;

(v) In depth study of a topic through:

(a) Open-ended tasks, and

(b) Products that reflect complex abstract, and/or higher level thinking skills;

(vi) Exploration of career options;

(vii) Accelerated coursework or content acceleration;

(viii) Mentorships; and

(ix) Guidance.

(3) Written Educational Plan

Instruction shall be based on the individual's needs and be guided by a written educational plan. The district shall provide parents with periodic reports regarding the effectiveness of the services provided in accordance with the gifted child's educational plan.

(4) The board of education of each district shall develop, in accordance with Department of Education guidelines, a plan for the service of gifted children enrolled in the district that are identified under section 3324.03 of the Revised Code.

(5) Each district board of education shall file the service plan developed under section 3324.07 of the Revised Code with the Department of Education by December 15, 2000.

(6) The district shall work with the Department of Education to ensure the service plan is adequate and provide funding estimates. If the district changes the plan, the revised plan shall be submitted to the Department of Education.

(7) Unless otherwise required by law, rule, or as a condition for receipt of funds, district boards of education may implement the plans developed under division (a) of this section, but shall not be required to do so until further action by the general assembly or the state superintendent of public instruction.

(E) PERSONNEL AND EDUCATION SERVICES FOR GIFTED EDUCATION

Services are those that are identified in the district's plan and must follow these rules. The district may not indicate to parents or report to the Department of Education that a child is gifted and served unless the child is served under the rule.

(1) Personnel shall provide instruction and services that are consistent with the gifted child's education plans.

(2) An intervention specialist for gifted education shall provide instruction and/or support services to a maximum of 60 gifted children or 20 full time equivalent gifted children, whichever is less. The majority of the intervention specialist's time shall be spent providing instruction directly to gifted children. Such instruction and/or support services may be provided:

(a) Through collaboration and/or team teaching with the regular education teachers;

(b) Through consultation with educational personnel and community members;

(c) In a resource room with a maximum of fifteen gifted children per intervention specialist at any one time; and/or

(d) In a self-contained classroom with a maximum of twenty gifted children per intervention specialist.

(3) The intervention specialist shall hold an intervention specialist license, valid for teaching children in the area of gifted ages five through twenty-one years.

(4) Coordinators of gifted education shall provide the following services for children who are gifted:

(a) Assist in the identification and selection of services;

(b) Inform parent(s) and others about the characteristics and educational needs of gifted children;

(c) Consult with school personnel about ways to develop and adapt curriculum, materials, and teaching strategies;

(d) Coordinate experiences such as: mentorship, advanced coursework, special seminars, independent studies, interdisciplinary curricular experiences, internships, career explorations, visual and/or performing arts experiences, and distance learning;

(e) Develop educational evaluations and accountability procedures, curriculum and staff development activities, and instruction or classroom management strategies;

(f) Provide teaching demonstrations to model appropriate teaching practices. However, coordinators shall not be assigned to regular scheduled teaching duties;

(g) Assist school personnel in the on-going evaluation of the effectiveness of gifted education services for the child, including input from parents of children who are gifted; and

(h) Serve as a liaison, among children who are gifted, school personnel, parent(s), community members, colleges and universities, industry, business and cultural institutions, and other interested publics.

(5) Coordinators shall meet the following qualifications:

(a) Evidence of at least three years successful teaching experience;

(b) Master's degree;

(c) Ohio administrative specialist license, if the coordinator is to supervise teachers; and

(d) Ohio intervention specialist license for gifted education.

(6) The Department of Education may approve and reimburse districts for the services of intervention specialist and coordinators for gifted education as follows:

(a) Unit funding for intervention specialists

(i) Units may be approved in a district or consortium of districts where coordinator services are available;

(ii) Units or fractional units may be approved to districts or a consortium of districts on the basis of two thousand average daily membership in kindergarten through grade twelve; and

(iii) One full intervention specialist unit may be approved in a district or a consortium of districts with fewer than two thousand average daily membership.

(b) Unit funding for coordinators

(i) Units or fractional units may be allocated to districts on the basis of five thousand average daily membership in kindergarten through grade twelve; and

(ii) One full coordinator unit may be allocated in a district or consortium of districts with fewer than five thousand children.

(c) Gifted personnel funded with state dollars shall be full-time in that role; and if partially state funded, services must be equal to the level of funding.

(7) Coordinators of gifted education services shall be provided with support services, appropriate instructional materials and equipment, and private space when conducting conferences with educators, parents, and children.

(F) ACCOUNTABILITY

(1) Each district shall submit an annual report to the Department of Education specifying the number of children in each of grades kindergarten through twelfth screened, the number assessed, and the number identified as gifted in each category specified in section 3324.03 of the Revised Code.

(2) Each district shall participate in an audit of the district's identification numbers at least once every three years or more frequently if randomly selected, based on complaints, or suspicion of non-compliance by the Department of Education.

(3) The Department of Education shall provide technical assistance to any district found in noncompliance under paragraphs (C) and (E) of this rule. The Department of Education may reduce funds received by the district under Chapter 3317. of the Revised Code by any amount if the district board of education continues to be noncompliant.

(4) The district shall prepare an annual written report on the effectiveness of the identification of, and services to, children who are gifted. The report shall be submitted to the Department of Education by July 15 of each year.

(G) THIS RULE SHALL NOT BE EXEMPTED FOR "EFFECTIVE" OR IN NEED OF "CONTINUOUS IMPROVEMENT" DISTRICTS PURSUANT TO PARAGRAPH (E) OF SECTION 3301-101-01 OF THE OHIO ADMINISTRATIVE CODE.

Effective: _____

Certification: _____

Date: _____

Promulgated under:	Chapter 119 of the Revised Code
Statutory authority:	R.C. 3324.02
Rule authorized by:	R.C. 3324.02
Rule amplifies:	R.C. 3324.01 through 3324.07
Rule review date:	_____

Appendix C:
National Association for Gifted Children Materials

Gifted Education Programming Criterion: Student Identification

Description: Gifted learners must be assessed to determine appropriate educational services.

Guiding Principles	Minimum Standards	Exemplary Standards
1. A comprehensive and cohesive process for student nomination must be coordinated in order to determine eligibility for gifted education services.	1.0M Information regarding the characteristics of gifted students in areas served by the district must be annually disseminated to all appropriate staff members. 1.1M All students must comprise the initial screening pool of potential recipients of gifted education services. 1.2M Nominations for services must be accepted from any source (e.g., teachers, parents, community members, peers, etc.). 1.3M Parents must be provided information regarding an understanding of giftedness and student characteristics.	1.0E The school district should provide information annually regarding the process for nominating students for gifted education programming services in a variety of languages. 1.1E The nomination process should be ongoing and screening of any student should occur at anytime. 1.2E Nomination procedures and forms should be available in a variety of languages. 1.3E Parents should be provided special workshops or seminars to get a full meaning of giftedness.
2. Instruments used for student assessment to determine eligibility for gifted education services must measure diverse abilities, talents, strengths, and needs in order to provide students an opportunity to demonstrate any strengths.	2.0M Assessment instruments must measure the capabilities of students with provisions for the language in which the student is most fluent, when available. 2.1M Assessments must be culturally fair. 2.2M The purpose(s) of student assessments must be consistently articulated across all grade levels. 2.3M Student assessments must be sensitive to the current stage of talent development.	2.0E Assessments should be provided in a language in which the student is most fluent, if available. 2.1E Assessment should be responsive to students' economic conditions, gender, developmental differences, handicapping conditions, and other factors that mitigate against fair assessment practices. 2.2E Students identified in all designated areas of giftedness within a school district should be assessed consistently across grade levels. 2.3E Student assessments should be sensitive to all stages of talent development.
3. A student assessment profile of individual strengths and needs must be developed to plan appropriate intervention.	3.0M An assessment profile must be developed for each child to evaluate eligibility for gifted education programming services. 3.1M An assessment profile must reflect the unique learning characteristics and potential and performance levels.	3.0E Individual assessment plans should be developed for all gifted learners who need gifted education. 3.1E An assessment profile should reflect the gifted learner's interests, learning style, and educational needs.
4. All student identification procedures and instruments must be based on current theory and research.	4.0M No single assessment instrument or its results must deny student eligibility for gifted programming services. 4.1M All assessment instruments must provide evidence of reliability and validity for the intended purposes and target students.	4.0E Student assessment data should come from multiple sources and include multiple assessment methods. 4.1E Student assessment data should represent an appropriate balance of reliable and valid quantitative and qualitative measures.
5. Written procedures for student identification must include at the very least provisions for informed consent, student retention, student reassessment, student exiting, and appeals procedures.	5.0M District gifted programming guidelines must contain specific procedures for student assessment at least once during the elementary, middle, secondary levels. 5.1M District guidelines must provide specific procedures for student retention and exiting, as well as guidelines for parent appeals.	5.0E Student placement data should be collected using an appropriate balance of quantitative and qualitative measures with adequate evidence of reliability and validity for the purposes of identification. 5.1E District guidelines and procedures should be reviewed and revised when necessary.

1998 National Association for Gifted Children, 1707 L Street, NW, Suite 550, Washington, DC 20036 (202) 786-4268 www.nagc.org

Appendix D:
Code of Fair Testing Practices in Education

Code of Fair Testing Practices in Education

Prepared by the Joint Committee on Testing Practices

The Code of Fair Testing Practices in Education states the major obligations to test takers of professionals who develop or use educational tests. The Code is meant to apply broadly to the use of tests in education (admissions, educational assessment, educational diagnosis, and student placement). The Code is not designed to cover employment testing, licensure or certification testing, or other types of testing. Although the Code has relevance to many types of educational tests, it is directed primarily at professionally developed tests such as those sold by commercial test publishers or used in formally administered testing programs. The Code is not intended to cover tests made by individual teachers for use in their own classrooms.

The Code addresses the roles of test developers and test users separately. Test users are people who select tests, commission test development services, or make decisions on the basis of test scores. Test developers are people who actually construct tests as well as those who set policies for particular testing programs. The roles may, of course, overlap as when a state educational agency commissions test development services, sets policies that control the test development process, and makes decisions on the basis of the test scores.

The Code has been developed by the Joint Committee on Testing Practices, a cooperative effort of several professional organizations, that has as its aim the advancement, in the public interest, of the quality of testing practices. The Joint Committee was initiated by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education. In addition to these three groups, the American Association for Counseling and Development/Association for Measurement and Evaluation in Counseling and Development, and the American Speech-Language-Hearing Association are now also sponsors of the Joint Committee.

This is not copyrighted material. Reproduction and dissemination are encouraged. Please cite this document as follows:

Code of Fair Testing Practices in Education. (1988)
Washington, D.C.: Joint Committee on Testing Practices.
(Mailing Address: Joint Committee on Testing Practices, American Psychological Association, 1200 17th Street, NW, Washington, D.C. 20036)

The Code presents standards for educational test developers and users in four areas:

A. Developing/Selecting Tests
B. Interpreting Scores
C. Striving for Fairness
D. Informing Test Takers

Organizations, institutions, and individual professionals who endorse the Code commit themselves to safeguarding the rights of test takers by following the principles listed. The Code is intended to be consistent with the relevant parts of the Standards for Educational and Psychological Testing (AERA, APA, NCME, 1985). However, the Code differs from the Standards in both audience and purpose. The Code is meant to be understood by the general public; it is limited to educational tests; and the primary focus is on those issues that affect the proper use of tests. The Code is not meant to add new principles over and above those in the Standards or to change the meaning of the Standards. The goal is rather to represent the spirit of a selected portion of the Standards in a way that is meaningful to test takers and/or their parents or guardians. It is the hope of the Joint Committee that the Code will also be judged to be consistent with existing codes of conduct and standards of other professional groups who use educational tests.

A. Developing/Selecting Appropriate Tests*

Test developers should provide the information that test users need to select appropriate tests.

Test developers should:

1. Define what each test measures and what the test should be used for. Describe the population(s) for which the test is appropriate.

2. Accurately represent the characteristics, usefulness, and limitations of tests for their intended purposes.

3. Explain relevant measurement concepts as necessary for clarity at the level of detail that is appropriate for the intended audience(s).

4. Describe the process of test development. Explain how the content and skills to be tested were selected.

5. Provide evidence that the test meets its intended purpose(s).

6. Provide either representative samples or complete copies of test questions, directions, answer sheets, manuals, and score reports to qualified users.

Test users should select tests that meet the purpose for which they are to be used and that are appropriate for the intended test-taking populations.

Test users should:

1. First define the purpose for testing and the population to be tested. Then, select a test for that purpose and that population based on a thorough review of the available information.

2. Investigate potentially useful sources of information, in addition to test scores, to corroborate the information provided by tests.

3. Read the materials provided by test developers and avoid using tests for which unclear or incomplete information is provided.

4. Become familiar with how and when the test was developed and tried out.

5. Read independent evaluations of a test and of possible alternative measures. Look for evidence required to support the claims of test developers.

6. Examine specimen sets, disclosed tests or samples of questions, directions, answer sheets, manuals, and score reports before selecting a test.

* Many of the statements in the Code refer to the selection of existing tests. However, in customized testing programs, test developers are engaged to construct new tests. In those situations, the test development process should be designed to help ensure that the completed tests will be in compliance with the Code.

Test developers should:	Test users should:
7. Indicate the nature of the evidence obtained concerning the appropriateness of each test for groups of different racial, ethnic, or linguistic backgrounds who are likely to be tested.	7. Ascertain whether the test content and norm group(s) or comparison group(s) are appropriate for the intended test takers.
8. Identify and publish any specialized skills needed to administer each test and to interpret scores correctly.	8. Select and use only those tests for which the skills needed to administer the test and interpret scores correctly are available.

B. Interpreting Scores

Test developers should help users interpret scores correctly.	Test users should interpret scores correctly.
Test developers should:	**Test users should:**
9. Provide timely and easily understood score reports that describe test performance clearly and accurately. Also, explain the meaning and limitations of reported scores.	9. Obtain information about the scale used for reporting scores, the characteristics of any norm or comparison groups(s), and the limitations of the scores.
10. Describe the population(s) represented by any norms or comparison group(s), the dates the data were gathered, and the process used to select the samples of test takers.	10. Interpret scores taking into account any major differences between the norm or comparison groups and the actual test takers. Also take into account any differences in test administration practices or familiarity with the specific questions in the test.
11. Warn users to avoid specific, reasonably anticipated misuses of test scores.	11. Avoid using tests for purposes not specifically recommended by the test developer unless evidence is obtained to support the intended use.
12. Provide information that will help users follow reasonable procedures for setting passing scores when it is appropriate to use such scores with the test.	12. Explain how any passing scores were set and gather evidence to support the appropriateness of the scores.
13. Provide information that will help users gather evidence to show that the test is meeting its intended purpose(s).	13. Obtain evidence to help show that the test is meeting its intended purpose(s).

C. Striving for Fairness

Test developers should strive to make tests that are as fair as possible for test takers of different races, gender, ethnic backgrounds, or different handicapping conditions.

Test users should select tests that have been developed in ways that attempt to make them as fair as possible for test takers of different races, gender, ethnic backgrounds, or handicapping conditions.

Test developers should:

14. Review and revise test questions and related materials to avoid potentially insensitive content or language.

15. Investigate the performance of test takers of different races, gender, and ethnic backgrounds when samples of sufficient size are available. Enact procedures that help to ensure that differences in performance are related primarily to the skills under assessment rather than to irrelevant factors.

16. When feasible, make appropriately modified forms of tests or administration procedures available for test takers with handicapping conditions. Warn test users of potential problems in using standard norms with modified tests or administration procedures that result in non-comparable scores.

Test users should:

14. Evaluate the procedures used by test developers to avoid potentially insensitive content or language.

15. Review the performance of test takers of different races, gender, and ethnic backgrounds, when samples of sufficient size are available. Evaluate the extent to which performance differences may have been caused of the test.

16. When necessary and feasible, use appropriately modified forms or administration procedures for test takers with handicapping conditions. Interpret standard norms with care in the light of the modifications that were made.

D. Informing Test Takers

Under some circumstances, test developers have direct communication with test takers. Under other circumstances, test users communicate directly with test takers. Whichever group communicates directly with test takers should provide the information described below.

Test developers or test users should:

17. When a test is optional, provide test takers or their parents/guardians with information to help them judge whether the test should be taken, or if an available alternative to the test should be used.

18. Provide test takers the information they need to be familiar with the coverage of the test, the types of question formats, the directions, and appropriate test-taking strategies. Strive to make such information equally available to all test takers.

Under some circumstances, test developers have direct control of tests and test scores. Under other circumstances, test users have such control. Whichever group has direct control of tests and test scores should take the steps described below.

Test developers or test users should:

19. Provide test takers or their parents/ guardians with information about rights test takers may have to obtain copies of tests and completed answer sheets, retake tests, have tests rescored, or cancel scores.

20. Tell test takers or their parents/guardians how long scores will be kept on file and indicate to whom and under what circumstances test scores will or will not be released.

21. Describe the procedures that test takers or their parents/guardians may use to register complaints and have problems resolved.

Note: The membership of the Working Group that developed the Code of Fair Testing Practices in Education and of the Joint Committee on Testing Practices that guided the Working Group was as follows:

Theodore P. Bartell
Esther E. Diamond
Lorraine D. Eyde
John J. Fremer (Co-chair, JCTP, Chair, Code Working Group)
Jo-Ida C. Hansen
George F. Madaus (Co-chair, JCTP)
Jo-Ellen V. Perez
John T. Stewart
Nicholas A. Vacc
John R. Bergan
Richard P. Duran
Raymond D. Fowler
Edmund W. Gordon
James B. Lingwall
Kevin L. Moreland
Robert J. Solomon
Carol Kehr Tittle (Co-chair, JCTP)
Michael J. Zieky

(Debra Boltas and Wayne Camara of the American Psychological Association served as staff liaisons.)

Additional copies of the Code may be obtained from the National Council on Measurement in Education, 1230 Seventeenth Street, NW, Washington, D.C. 20036. Single copies are free.

Appendix E:
A Glossary of Measurement Terms

A Glossary of Measurement Terms. ERIC Digest.

A

Achievement Test

An objective examination that measures educationally relevant skills or knowledge about such subjects as reading, spelling, or mathematics.

Age Norms

Values representing typical or average performance of people of age groups.

Average

A statistic that indicates the central tendency or most typical score of a group of scores. Most often average refers to the sum of a set of scores divided by the number of scores in the set.

B

Battery

A group of carefully selected tests that are administered to a given population, the results of which are of value individually, in combination, and totally.

C

Ceiling

The upper limit of ability that can be measured by a particular test.

Criterion-Referenced Test

A measurement of achievement of specific criteria or skills in terms of absolute levels of mastery. The focus is on performance of an individual as measured against a standard or criteria rather than against performance of others who take the same test, as with norm-referenced tests.

D

Diagnostic Test

An intensive, in-depth evaluation process with a relatively detailed and narrow coverage of a specific area. The purpose of this test is to determine the specific learning needs of individual students and to be able to meet those needs through regular or remedial classroom instruction.

Domain-Referenced Test

A test in which performance is measured against a well-defined set of tasks or body of knowledge (domain). Domain-referenced tests are a specific set of criterion-referenced tests and have a similar purpose.

G

Grade Equivalent

The estimated grade level that corresponds to a given score.

I

Informal Test

A nonstandardized test that is designed to give an approximate index of an individual's level of ability or learning style; often teacher-constructed.

Inventory

A catalog or list for assessing the absence or presence of certain attitudes, interests, behaviors, or other items regarded as relevant to a given purpose.

Item

An individual question or exercise in a test or evaluative instrument.

N

Norm

Performance standard that is established by a reference group and that describes average or typical performance. Usually norms are determined by testing a representative group and then calculating the group's test performance.

Normal Curve Equivalent

Standard scores with a mean of 50 and a standard deviation of approximately 21.

Norm-Referenced Test

An objective test that is standardized on a group of individuals whose performance is evaluated in relation to the performance of others; contrasted with criterion-referenced test.

O

Objective Percent Correct

The percent of the items measuring a single objective that a student answers correctly.

P

Percentile

The percent of people in the norming sample whose scores were below a given score.

Percent Score

The percent of items that are answered correctly.

Performance Test

Designed to evaluate general intelligence or aptitudes. Consists primarily of motor items or perceptual items because verbal abilities play a minimal role.

Published Test

A test that is publicly available because it has been copyrighted and published commercially.

R

Rating Scales

Subjective assessments made on predetermined criteria in the form of a scale. Rating scales include numerical scales or descriptive scales. Forced choice rating scales require that the rater determine whether an individual demonstrates more of one trait than another.

Raw Score

The number of items that are answered correctly.

Reliability

The extent of which a test is dependable, stable, and consistent when administered to the same individuals on different occasions. Technically, this is a statistical term that defines the extent of which errors of measurement are absent from a measurement instrument.

S

Screening

A fast, efficient measurement for a large population to identify individuals who may deviate in a specified area, such as the incidence of maladjustment or readiness for academic work.

Specimen Set

A sample set of testing materials that are available from a commercial test publisher. May include a complete individual test without multiple copies or a copy of the basic test and administration procedures.

Standardized Test

A form of measurement that has been normed against a specific population. Standardization is obtained by administering the test to a given population and then calculating means, standard deviations, standardized scores, and percentiles. Equivalent scores are then produced for comparisons of an individual score to the norm group's performance.

Standard Scores

A score that is expressed as a deviation from a population mean.

Stanine

One of the steps in a nine-point scale of standard scores.

V

Validity

The extent to which a test measures what it was intended to measure. Validity indicates the degree of accuracy of either predictions or inferences based upon a test score.

Appendix F:
Scale for the Evaluation of Gifted Identification Instruments (SEGII)

SCALE FOR THE EVALUATION OF GIFTED IDENTIFICATION INSTRUMENTS (SEGII)

Instrument Name: Torrance Test of Creative Thinking: Figural

Age group: K - adult

Implied/implicit definition of construct measured:
general intellectual ability

Suggested use: screening creative students

Reviewed for: general intellectual ability

RATING SCALE KEY:

EXCELLENT:	The instrument meets all of the criteria standards.
GOOD:	The instrument meets most of the described criteria.
FAIR:	The instrument meets some of the criteria, or some limited evidence or information is presented.
POOR:	The instrument meets none of the criteria, or no supporting evidence is available.
NOT APPLICABLE:	Criteria do not apply to the instrument.

DIRECTIONS: The rater should consult all available sources of reliability/validity information and other reviews of the instrument included in the National Repository of identification instruments database for purposes of evaluating the instrument. Then, for each of the identification instrument standards included in this rating scale, the rater should circle the appropriate degree ("Not Applicable, Poor, Fair, Good, Excellent") to which the instrument meets that standard (Special Note: "Not Applicable" should only be used for rare instances when a standard may not apply due to the nature of the instrument). Please note that in the criteria standards described below, the term "instrument manual" refers to the formal manual or any directions or other materials that may accompany the instrument. Finally, note that the term "instrument" should be considered in a very broad sense, thereby including non-traditional identification practices such as auditions, portfolios, performance rating scales, etc., as well as traditional standardized paper and pencil methods of gifted identification.

IDENITIFCATION INSTRUMENT STANDARDS — RATING

Page 1: Validity Standards

I. VALIDITY STANDARDS. The rater should consult the instrument manual and published reviews for this section. The rater should consider the instrument's purpose and stated construct while completing all validity standards.

1. Content validity: poor
   The instrument provides a clear definition of the universe represented and provides detailed evidence that the behavior domain was carefully sampled in instrument construction, including a detailed classification of test items by performance objectives, along with an explanation of the selection procedures and/or references to special procedures.
2. Construct validity:
   a. Experimental construct validity: poor
      Statistical data is presented from a variety of empirical studies using analyses such as factor or correlational analysis that provide a strong support that the instrument accurately reflects the stated underlying construct.
   b. Discriminant construct validity: poor
      Empirical evidence demonstrates that the instrument measures something distinct from what is measured by other tests of similar format but different constructs. Further, the proposed interpretation of the construct is clearly stated in the manual and distinguished from other interpretations arising from other theories.
   c. Convergent construct validity: poor
      The instrument correlates more closely with other tests measuring the same construct using different methods than with tests measuring different constructs.
3. Criterion validity:
   a. Concurrent criterion validity: poor
      Scores on the instrument are related to performance on a separate task or criterion administered concomitantly. The manual also provides user information in terms of the appropriateness of generalizing from the validity information. A given coefficient should be r = > .70 for a rating of excellent (Good: r = .70-.30; Fair: r = < .30; Poor: not reported).
   b. Predictive criterion validity: poor
      Evidence is provided in support of the predictive nature of the instrument for students, such as by scores/performance on the instrument related to performance on separate task or criterion administered well after the instrument is used. A given coefficient should be r = > .50 with a criterion relevant interval of at least two months for a rating of excellent (Good: r = .30-.50; Fair: r = < .30; Poor: not reported).

Callahan, C. M. (1995). NRC G/T

Validity Standards (cont.)

RATING

4. Gifted Construct Validity:
   Supportive data or other evidence for justification is provided which supports the particular use of the instrument to measure the existence of the construct of psychological traits, abilities, or attributes as originally defined and intended by the authors of the instrument. The instrument is used in this instance in the context of the gifted conceptions checked below:

   ___ General I.Q. ___Psychosocial ___Multiple Intelligences ___Multiple Talent ___USOE ___Three-Ring ___Structure of Intellect

   ___Information Processing ___ Other _____

IF YOU HAVE JUDGED THE INSTRUMENT TO BE INVALID FOR THE CONSTRUCT MEASURED, DO NOT CONTINUE RATING THE INSTRUMENT.

RATING

Reliability Standards

II. RELIABILITY STANDARDS. The rater should consult the instrument manual and published reviews to complete this section. All instruments must provide appropriate reliability evidence according to their format.

1. Internal consistency reliability:
   The homogenous, consistent quality of the content of instrument items is evidenced by an appropriate reliability indicator such as split-half, Kuder-Richardson, or alpha coefficients. This reliability coefficient should be greater than .90 for a rating of excellent (Good: r = .70-.90; Fair: r = < .70; Poor: not reported).
2. Equivalence reliability:
   Alternate form reliability is demonstrated by correlational data between scores on two comparable or parallel forms administered to the same group of examinees at essentially the same time. This reliability coefficient should be greater than .90 for a rating of excellent (Good: r = .70-.90; Fair: r = < .70; Poor: not reported).
3. Test-retest stability reliability:
   Supporting evidence is provided for the stability of test scores over a period of time, by correlations on test scores obtained by the same groups of examinees on two occasions at least one month apart. For achievement or aptitude instruments, this reliability coefficient should be greater than .90 for a rating of excellent (Good: r = .50-.90; Fair: r = < .70; Poor: not reported). For affective and behavioral measures, this reliability coefficient should be greater than .70 for a rating of excellent (Good: r = .50-.70; Fair: r = .20-.50; Poor: not reported).
4. Intra/Interrater Reliability:
   A high level of confidence for the objectivity and consistency of raters in scoring the instrument (when applicable) is demonstrated by such means as reported correlations, percentage of agreement, or analysis of variance. A correlation greater than .90 is considered the standard for a rating of excellent (Good: r = .80-.90; Fair: r = < .80; Poor: not reported).
5. Replicability:
   Well-defined and controlled test procedures and conditions are described such that normative data is well established and the instrument is effectively standardized and useful in order for the user to achieve duplication of test results.
6. Range of coverage:
   A wide range of coverage for the distribution of scores is provided, enabling the raw scores to effectively differentiate among students at the upper end of the scale.
7. Score graduation:
   The raw scores are converted into percentiles, Z-scores, T-scores, grade equivalents, stanines, or other common standard forms of reporting scores for purposes of interpretation.

IF YOU HAVE FOUND THAT THE INSTRUMENT IS NOT SUITABLY RELIABLE, DO NOT CONTINUE THE RATING.

Propriety and Respondent Appropriateness Standards

RATING

III. PROPRIETY STANDARDS. The rater should review the instrument and the manual to respond to this section. There must be some evidence presented in support of both of these propriety standards(Do not check "NA").

1. Ethical/professional: The procedures used in administration, instrument content, and recommendations for action conform to accepted ethical assessment practices with due regard to the rights and welfare of those involved in the evaluation (as defined by Standards for Educational and Psychological Testing).
2. Obligations and disclosure: The instrument manual states that parents or guardians of individuals to be assessed must be made aware of all aspects and conditions required by the instrument for administration and assessment and formally agree to these requirements in writing, if appropriate. The manual also encourages for an open, direct, and honest presentation of results to individuals assessed, including an explanation of the results.

IV. RESPONDENT APPROPRIATENESS STANDARDS. The rater should review the actual instrument for this section. The rater should assess these appropriateness standards based upon the instrument's intended audience. Evidence must be provided to address all of these standards (Do not check "NA").

1. Justification/purpose: The purpose, intent, or commended use of the instrument is explained to the respondent in an understandable and straightforward manner in the instructions/directions section.
2. Face validity: All test items are judged to be appropriate, unambiguous, and suitable for intended respondents in terms of immediate comprehension and degrees of difficulty. Further, the subject matter represented by items is presented in an unbiased fashion that appears relevant and interesting for the respondents.
3. Instructions: All instructions are easily understandable and appropriate for age of respondent in terms of readability, concepts, vocabulary, length, and function to properly prepare the respondent for the instrument. The instructions clearly state response form(s) and include sample items that illustrate the necessary skills and item format required for each range of tasks.
4. Format: The visual format of the instrument is aesthetically well-constructed and easily understandable in terms of its overall organization, layout, print quality, use of illustrations, and consistency of presentation of all ranges of task items.
5. Time/pacing: Adequate and appropriate time limits for responses in relation to the subject matter and grade level/age of intended respondents are provided by the instrument.
6. Recording answers: The instrument response modes are simple, direct, easily accomplished, and appropriate for the subject matter and the grade level/age of intended respondents.

Utility Standards

V. UTILITY STANDARDS. The rater should review the instrument and manual for this section. For standards that include sub-items, raters should review and check sub-items before issuing an overall rating of these standards.

1. Audience identification:
   The instrument clearly states appropriate age or grade level of respondents and purpose for the identification of gifted students. This information must be presented (if none is given, check "Poor").
   Grade level _____ Age level _____ Purpose in identifying gifted students _____
2. Administration:
   a. Training:
      The instrument can be administered by one regular school staff individual and requires less than one hour of specific training and/or preparation. Administration of the instrument by a teacher or aide is considered the standard for a rating of excellent (Good: school counselor; Fair: licensed psychologist; Poor: no information).
   b. Group size:
      The instrument can be administered to large groups of students, providing for effective large scale evaluation. Evaluation of large groups of students (10 or more) is considered the standard for a rating of excellent (Good: Small group (2-10 students); Fair: individual administration necessary; Poor: not clear or not stated).

Utility Standards (cont.)

c. Time:
The instrument requires an appropriate amount of time for ease of administration (and is organized to allow for appropriate breaks if needed) given the age level of the respondent. Completion time of 20 minutes or less is considered the standard for excellent (Good: 20-40 minutes; Fair: 1-2 hours; Poor: > 2 hours or not reported).

d. Manual quality:
The instrument manual is legible, well-organized, consistent, easy to use, and thorough in its directions for test administration so that the test user can duplicate procedures used in standardizing the test. The manual also provides comprehensive information in regard to purpose/uses of the instrument and reliability and validity data.

3. Scoring:
   a. Scoring ease:
   The instrument can be easily and objectively hand-scored or machine-scoring service is available.
   ☐ May be hand-scored or machine-scored ☐ Must be hand-scored ☐ Must be machine-scored
   b. Score conversion:
   A simple, one-step process of accurately converting raw scores to normed/interpreted scores is provided by use of clearly explained tables, graphs, or scoring keys.
   c. Report clarity and distribution:
   Examinee scores or performance are presented in clear and self-explanatory terms free of unnecessary jargon and are distributed in a timely fashion.

4. Interpretation:
   a. Evaluator training:
   The instrument can be directly and immediately interpreted by regular school personnel relative to a specified norm group or standard. The necessary qualifications for persons interpreting results and guidelines are explicitly stated in the test manual. Interpretation by teacher is considered the standard for a rating of excellent (Good: counselor input required; Fair: licensed psychologist input required; Poor: not clear or not stated).
   b. Norm range:
   Data is provided for purposes of interpretation indicating that the instrument has been normed on a broad range of educational ability or is applicable to groups falling at the upper end of the continuum.
   c. Norm timing:
   The norms for the instrument are current (within last five years).
   Date of norming: _____
   d. Norm groups:
   __ Norms are provided for regular populations of students.
   __ Norms are provided for gifted populations of students.
   __Norms are provided for special populations:
   ___ handicapped
   ___ economically disadvantaged
   ___ minority: ☐ black ☐ Native American ☐ Asian ☐ Hispanic
   __ No norms are provided.

5. Evaluation:
Explicit guidelines are described for using test results to make objective and valid assessments of student performance and to make defensible decisions in regard to placement, diagnosis, or selection of services for students.

6. Political viability:
The instrument is considered as an accepted means of identification of gifted students by various interest groups and professional education/measurement/evaluation associations.

BEST COPY AVAILABLE

Appendix G:
Test Evaluation

TEST EVALUATION

By Lawrence M. Rudner, ERIC/AE 12/93

You should gather the information you need to evaluate a test.

1). Be sure you have a good idea of what you want a test to measure and how you are going to use it.
2) Get a specimen set from the publisher. Be sure it includes technical documentation.
3) Look at review prepared by others. The Buros and Pro-Ed Test Locators should help you identify some existing reviews. The MMY also contains references in the professional literature concerning cited tests. The ERIC database can also be used to identify existing reviews.
4) Read the materials and determine for yourself whether the publisher has made a compelling case that the test is valid and appropriate for your intended use.

There are several guidelines to help you evaluate tests.

- The Code of Fair Testing Practices, which is available through this gopher site.
- American Psychological Association (1986) Standards for Educational and Psychological Tests and Manuals. Washington, DC: author.
- Equal Employment Opportunity Commission (1978) Uniform Guidelines on Employee Selection Procedures, Federal Register 43, 116, 38295 – 38309.
- Society for Industrial and Organizational Psychology (1987) Principles for the validation and use of personnel selection procedures. Third edition. College Park, MD: author.

In this brief, we identify key standards from the Standards for Educational and Psychological Testing established by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education. We describe these standards and questions you may want to raise to evaluate whether the standard has been met.

We discuss standards concerning

A. Test coverage and use
B. Appropriate samples for test validation and norming
C. Reliability
D. Predictive validity
E. Content validity
F. Construct validity
G. Test administration
H. Test reporting
I. Test and item bias

A. Test coverage and use

There must be a clear statement of recommended uses and a description of the population for which the test is intended.

The principal question to be asked in evaluating a test is whether it is appropriate for your intended purposes and your students. The use intended by the test developer must be justified by the publisher on technical grounds. You then need to evaluate your intended use against the publisher's intended use and the characteristics of the test.

Questions to ask are:

1. What are the intended uses of the test? What types of interpretations does the publisher feel are appropriate? Are foreseeable inappropriate applications identified?

2. Who is the test designed for? What is the basis for considering whether the test is applicable to your students?

B. Appropriate samples for test validation and norming

The samples used for test validation and norming must be of adequate size and must be sufficiently representative to substantiate validity statements, to establish appropriate norms, and to support conclusions regarding the use of the instrument for the intended purpose.

The individuals in the norming and validation samples should be representative of the group for which the test is intended in terms of age, experience and background.

Questions to ask are:

1. How were the samples used in pilot testing, validation and norming chosen? Are they representative of the population for which the test is intended? How is this sample related to your population of students? Were participation rates appropriate? Can you draw meaningful comparisons of your students and these students?

2. Was the number of test-takers large enough to develop stable estimates with minimal fluctuation due to sampling errors? Where statements are made concerning subgroups, is the number of test-takers in each subgroup adequate?

3. Do the difficulty levels of the test and criterion measures (if any) provide an adequate basis for validating and norming the instrument? Are there sufficient variations in test scores?

4. How recent was the norming?

C. Reliability

The test is sufficiently reliable to permit stable estimates of individual ability.

Fundamental to the evaluation of any instrument is the degree to which test scores are free from various sources of measurement error and are consistent from one occasion to another. Sources of measurement error, which include fatigue, nervousness, content sampling, answering mistakes, misinterpretation of instructions, and guessing, will always contribute to an individual's score and lower the reliability of the test.

Different types of reliability estimates should be used to estimate the contributions of different sources of measurement error. Inter-rater reliability coefficients provide estimates of errors due to inconsistencies in judgement between raters. Alternate-form reliability coefficients provide estimates of the extent to which individuals can be expected to rank the same on alternate forms of a test. Of primary interest are estimates of internal consistency which account for error due to content sampling, usually the largest single component of measurement error.

Questions to ask are:

1. Have appropriate types of reliability estimates been computed? Have appropriate statistics been used to compute these estimates? (Split half-reliability coefficients, for example, should not be used with speeded tests as they will produce artificially high estimates.)

2. What are the reliabilities of the test for different groups of test-takers? How were they computed?

3. Is the reliability sufficiently high to warrant the use of the test as a basis for making decisions concerning individual students?

D. Predictive validity

The test adequately predicts academic performance.

In terms of an achievement test, predictive validity refers to the extent to which a test can be appropriately used to draw inferences regarding achievement. Empirical evidence in support of predictive validity must include a comparison of a performance on the test being validated against performance on outside criteria.

A variety of measures are available as outside criteria. Grades, class rank, other tests, teacher ratings, and other criteria have been used. Each of these measures, however, have their own limitations.

There are also a variety of ways to demonstrate the relationship between the test being validated and subsequent performance. Scatterplots, regression equations, and expectancy tables should be provided in addition to correlation coefficients.

Questions to ask are:

1. What criterion measure(s) have been used in evaluating validity? What is the rationale for choosing this measure? Is this criterion measure appropriate?

2. Is the distribution of scores on the criterion measure adequate?

3. What is the basis for the statistics used to demonstrate predictive validity?

4. What is the overall predictive accuracy of the test? How accurate are predictions for individuals whose scores are close to cut-points of interest?

E. Content validity

The test measures content of interest.

Content validity refers to the extent to which the test questions are representative of the skills in the specified domain.

Content validity will often be evaluated by an examination of the plan and procedures used in test construction. Did the test development procedure follow a rational approach that ensures appropriate content? Did the process ensure that the collection of items would be representative of appropriate skills?

Questions to ask are:

1. Is there a clear statement of the universe of skills represented by the test? What is the basis for selecting this set of skills? What research was conducted to determine desired test content and/or evaluate it once selected?

2. Were the procedures used to generate test content and items consistent with the test specifications?

3. What was the composition of expert panels used in content validation? What process was used to elicit their judgements?

4. How similar is this content to the content you are interested in testing?

F. Construct validity

The test measures the right psychological constructs.

Construct validity refers to the extent to which a test measures a trait derived from research or experience that have been constructed to explain observable behavior. Intelligence, self-esteem, and creativity are examples of such psychological traits.

Evidence in support of construct validity can take many forms. One approach is to demonstrate that the items within a measure are inter-related and therefore measure a single construct. Inter-item correlation and factor analysis are often used to demonstrate relationships among the items.

Another approach is to demonstrate that the test behaves as one would expect a measure of the construct to behave. One might expect a measure of creativity to show a greater correlation with a measure of artistic ability than a measure of scholastic achievement would show.

Questions to ask are:

1. Is the conceptual framework for each tested construct clear and well founded? What is the basis for concluding that the construct is related to the purposes of the test?

2. Does the framework provide a basis for testable hypotheses concerning the construct? Are these hypotheses supported by empirical data?

G. Test administration

Detailed and clear instruction outlining appropriate test administration procedures are provided.

Statements concerning the validity of a test for an intended purpose and the accuracy of the norms associated with a test can only generalize to testing situations which replicate the conditions used to establish validity and obtain normative data. Test administrators need detailed and clear instructions in order to replicate these conditions.

All test administration specifications, such as instructions to test-takers, time limits, use of reference materials, use of calculators, lighting, equipment, assigning seats, monitoring, room requirements, testing sequence, and time of day, should be fully described.

Questions to ask are:

1. Will test administrators understand precisely what is expected of them?

2. Do the test administration procedures replicate the conditions under which the test was validated and normed? Are these procedures standardized?

H. Test reporting

The methods used to report test results, including scaled scores, subtests results and combined test results, are described fully along with the rationale for each method.

Test results should be presented in a manner that will help schools, teachers and students to make decisions that are consistent with appropriate users of the test. Help should be available for interpreting and using the test results.

Questions to ask are:

1. How are test results reported to test-takers? Are they clear and consistent with the intended use of the test? Are the scales used in reporting results conducive to proper test use?

2. What material and resources are available to aid in interpreting test results?

I. Test and item bias

The test is not biased or offensive with regard to race, sex, native language, ethnic origin, geographic region, or other factors.

Test developers are expected to exhibit a sensitivity to the demographic characteristics of test-takers, and steps should be taken during test development, validation, standardization, and documentation to minimize the influence of cultural factors on individual test scores. These steps may include the use of individuals to evaluate items for offensive and cultural dependency, the use of statistics to identify differential item difficulty, and an examination of predictive validity for different groups.

Tests are not expected to yield equivalent mean scores across population groups. To do so would be to inappropriately assume that all groups have had the same educational and cultural experiences. Rather, tests should yield the same scores and predict the same likelihood of success for individual test-takers of the same ability, regardless of group membership.

Questions to ask are:

1. Were reviews conducted during the test development and validation process to minimize possible bias and offensiveness? How were these reviews conducted? What criteria were used to evaluate the test specifications and/or test items? What was the basis for these criteria?

2. Were the items analyzed statistically for possible bias? What method or methods were used? How were items selected for inclusion in the final version of the test?

3. Was the test analyzed for differential validity across groups? How was this analysis conducted? Does the test predict the same likelihood of success for individuals of the same ability, regardless of group membership?

4. Was the test analyzed to determine the English language proficiency required of test-takers? Is the English proficiency requirement excessive? Should the test be used with individuals who are not native speakers of English?

Appendix H:
References

A glossary of measurement terms. ERIC Digest. (Online). Available Internet: http://ericae.net/edo/ED315430.htm

Baston, A. D., Johnsen, S.K., Oakland, T.D., & Shaw, A.G. (1990). Identification of gifted/talented students in Texas. Austin, TX: Texas Association for the Gifted and Talented.

Borland, J.H. (1989). Planning and implementing programs for the gifted. New York: Teachers College Press.

Callahan, C.M., & Caldwell, M.S. (1995). A practitioner's guide to evaluating programs for the gifted. Washington, D.C.: National Association for Gifted Children.

Callahan, C.M., Hunsaker, S.L., Adams, C.M., Moore, S.D., & Bland, L.C. (1995). Instruments used in the identification of gifted and talented students. Charlottesville, VA: The University of Virginia.

Callahan, C.M. & McIntire, J.A. (1994). Identifying outstanding talent in American Indian and Alaska Native students. Washington, D.C.: U.S. Department of Education, Office of Educational Research and Improvement.

Daniels, S. (1997). Creativity in the classroom: Characteristics, climate, and curriculum. In N. Colangelo and G.A. Davis (Eds.), Handbook of gifted education (2nd ed.) (pp. 292-307). Needham Heights, MA: Allyn and Bacon.

Feldhusen, J.F. & Jarwan, F.A. (1993). Identification of gifted and talented youth for education programs. In K.A. Heller, F.J. Monks, & A. H. Passow (Eds.), International handbook of research and development of giftedness and talent (pp. 233-251). New York: Pergamon Press.

Ford, D.Y. (1996). Reversing underachievement among gifted black students. New York: Teachers College Press.

Ford, D.Y. & Harris, III, J.J. (1999). Multicultural gifted education. New York: Teachers College Press.

Impara, J.C. & Plake, B.S. (Eds.). (1998). The thirteenth mental measurements yearbook. Lincoln, NE: University of Nebraska Press.

Indiana Department of Education. (1990). The Indiana guide for the identification of gifted/talented students. Indianapolis, IN: Author.

Joint Committee on Testing Practices. (1988). Code of fair testing practices in education. Washington, D.C.: American Psychological Association.

Landrum, M.S. (1998, October). Best practices in the identification of gifted learners. Paper presented at the meeting of the Consortium of Ohio Coordinators of the Gifted. Columbus, Ohio.

Murphy, L.L., Conoley, J.C. & Impara, J.C. (Eds.). (1994). Tests in print IV. Lincoln, NE: University of Nebraska Press.

National Association for Gifted Children. (1998) Pre-K – grade 12 gifted program standards. Washington, D.C.: Author.

National Association for Gifted Children. (1997) Using tests to identify gifted students. Washington, D.C.: Author.

Richert, E.S. (1991). Rampant problems and promising practices in identification. In N. Colangelo & G.A. Davis (Eds.), Handbook of gifted education (pp. 81-96). Boston: Allyn and Bacon.

Richert, E.S., Alvino, J.J. & McDonnel, R.C. (1982). National report on identification: Assessment and recommendations for comprehensive identification of gifted and talented youth. Sewell, NJ: Educational Improvement Center-South.

Rudner, L. M. Test evaluation. (On line). Available Internet: http://www.ericae.net/seltips.txt.

Salvia, J. & Ysseldyke, J.E. (1998). Assessment (7th ed.). Boston, MA: Houghton Mifflin.

Sattler, J.M. (1992). Assessment of children (3rd ed.). San Diego, CA: Jerome M. Sattler, Publisher, Inc.

U.S. Department of Education. (1993). National excellence: A case for developing America's talent. Washington, D.C.: U.S. Government Printing Office.

Whitmore, J.R. (1980). Giftedness, conflict, and underachievement. Boston: Allyn and Bacon.

Copies available from:
Ohio Department of Education
Office of Special Education
933 High Street
Worthington, OH 43085-4087

This document is a publication of the Ohio Department of Education and does not represent official policy of the State Board of Education unless specifically stated.